

10/596419

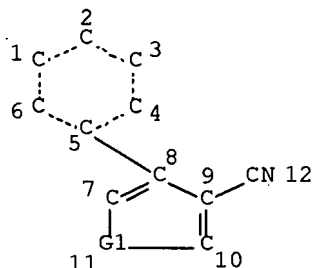
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L12 1327 SEA SUB=L3 SSS FUL L11

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L1 STR



VAR G1=O/S

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DEFAULT ECLEVEL IS LIMITED

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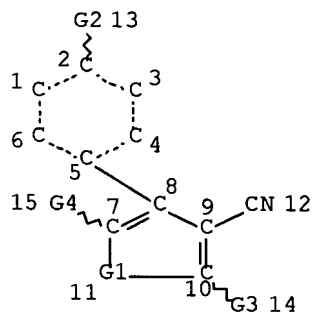
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STEREO ATTRIBUTES: NONE

L3 4662 SEA FILE=REGISTRY SSS FUL L1

L11 STR



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VAR G2=O/X/C/N/S

VAR G3=X/C/S/N

VAR G4=C/S/P/CY

NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

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STEREO ATTRIBUTES: NONE

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10/596419

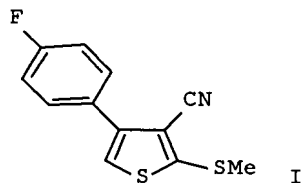
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1327 ANSWERS

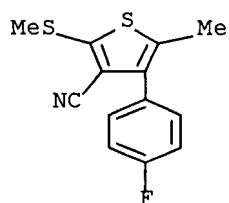
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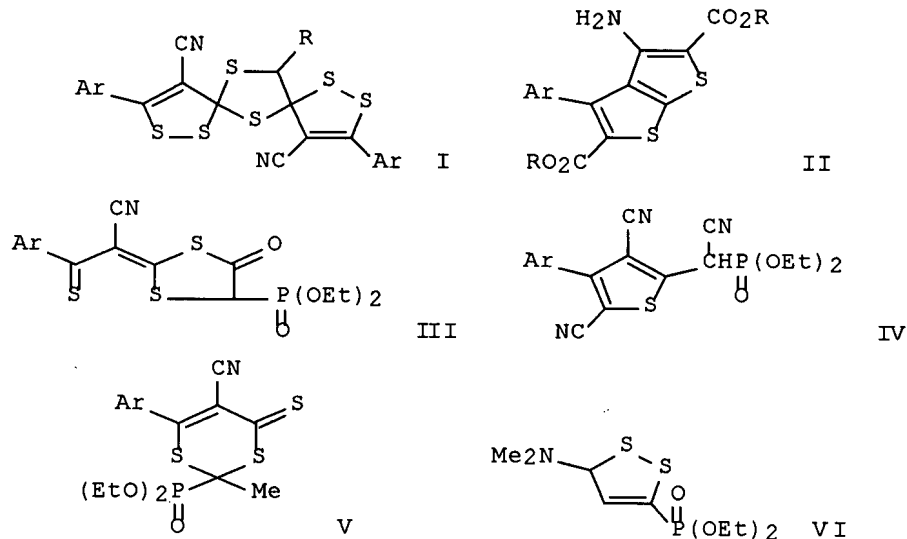
L13 ANSWER 1 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:523307 CAPLUS Full-text
DOCUMENT NUMBER: 141:243257
TITLE: Novel thiophenes and analogues with anthelmintic
activity against Haemonchus contortus
AUTHOR(S): Gonzalez, Isabel C.; Davis, Leon N.; Smith, Charles K.
CORPORATE SOURCE: Elanco Animal Health Research and Development, A
Division of Eli Lilly and Company, Greenfield, IN,
46140-0708, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2004
, 14(15), 4037-4043
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:243257
GI



AB A new series of analogs of 4-(4-fluorophenyl)-2-methylthio-thiophene-3-carbonitrile (I) were synthesized and evaluated for their in vitro and in vivo anthelmintic activity against Haemonchus contortus.
IT 748818-00-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(novel thiophenes and analogs with anthelmintic activity against Haemonchus contortus)
RN 748818-00-0 CAPLUS
CN 3-Thiophenecarbonitrile, 4-(4-fluorophenyl)-5-methyl-2-(methylthio)- (CA INDEX NAME)



L13 ANSWER 2 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:356224 CAPLUS Full-text
 DOCUMENT NUMBER: 141:314252
 TITLE: Similarity and dissimilarity between Wittig and Wittig-Horner synthon reactivity toward cyclic and acyclic cis-disulfides
 AUTHOR(S): Abdou, Wafaa M.; Khidre, Maha D.; Kamel, Azza A.
 CORPORATE SOURCE: Department of Pesticide Chemistry, National Research Centre, Cairo, Egypt
 SOURCE: Heterocyclic Communications (2004), 10(2-3), 217-222
 CODEN: HCOMEX; ISSN: 0793-0283
 PUBLISHER: Freund Publishing House Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 141:314252
 GI



AB The behavior of different types of α -phosphoryl carbanions such as alkoxy-carbonylmethylene, cyanomethylene and viny-phosphonate generated from $(\text{EtO})_2\text{P}(\text{O})\text{R}$ ($\text{R} = \text{CH}_2\text{CO}_2\text{Me}$, $\text{CH}_2\text{CO}_2\text{Et}$, CH_2CN , $\text{CH}:\text{CH}_2$) toward 5-(4-chlorophenyl)-4-cyano-1,2-dithiol-3-thione and tetramethylthiuram disulfide, i.e. $\text{Me}_2\text{NC}(:\text{S})\text{S}-\text{S}-\text{C}(:\text{S})\text{NMe}_2$ has been investigated. The reactions proceeded in the presence of a base whereby several substituted thiols, dithiols and different types of dimeric products as well as many phosphono substituted S-

10/596419

heterocycles, i.e. (I, II; R1 = Me, Et; Ar = 4-chlorophenyl), (III), (IV), (V), and (VI), were obtained.

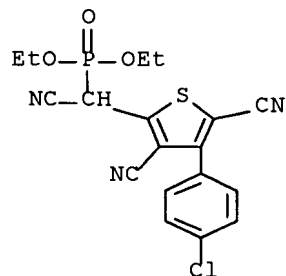
IT 768399-08-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(similarity and dissimilarity between Wittig and Wittig-Horner synthon reactivity toward cyclic and acyclic cis-disulfides)

RN 768399-08-2 CAPLUS

CN Phosphonic acid, [[4-(4-chlorophenyl)-3,5-dicyano-2-thienyl]cyanomethyl]-, diethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:60143 CAPLUS Full-text

DOCUMENT NUMBER: 140:111425

TITLE: Preparation of thienopyrimidine and isothiazolopyrimidine kinase inhibitors

INVENTOR(S): Michaelides, Michael R.; Curtin, Michael L.; Dai, Yujia; Davidsen, Steven K.; Frey, Robin R.; Guo, Yan; Ji, Zhiqin

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 62 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

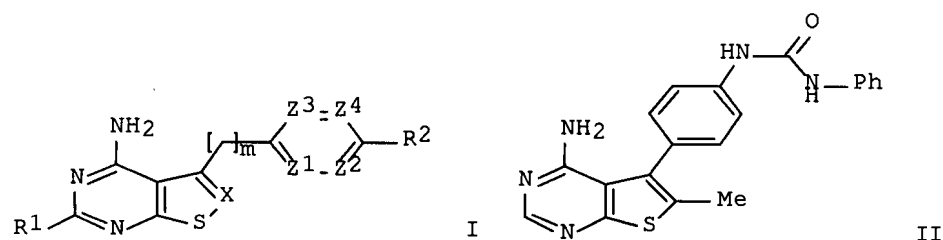
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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|------------------------|------|----------|-----------------|--------------|
| US 2004014756 | A1 | 20040122 | US 2003-392951 | 20030320 <-- |
| US 2006276490 | A1 | 20061207 | US 2006-464961 | 20060816 |
| PRIORITY APPLN. INFO.: | | | US 2002-366708P | P 20020321 |
| | | | US 2003-392951 | B3 20030320 |

OTHER SOURCE(S): MARPAT 140:111425

GI

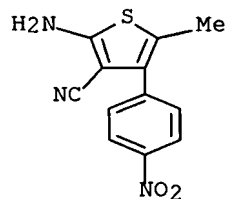


AB The title compds. [I; X = N, CR3; Z1 = N, CR4; Z2 = N, CR5; Z3 = N, CR6; Z4 = N, CR7; R1 = H, NH2; R2 = alkoxy, CN, OH, NO2, etc.; R3 = H, alkenyl, alkoxyalkyl, alkyl, etc.; R4-R7 = H, alkoxy, alkyl, halo, etc.; m = 0-2; provided that at least one of Z1-Z4 is other than N], useful for inhibiting protein tyrosine kinases, were prepared. Thus, treating 5-(4-aminophenyl)-6-methylthieno[2,3-d]pyrimidin-4-amine (preparation given) with Ph isocyanate in CH2Cl2 afforded 87% II. The compds. I inhibited KDR at IC50's between about 0.003 μ M and >50 μ M, and Tie-2 at IC50's between about 0.01 μ M and >50 μ M. Pharmaceutical composition comprising the compound I was claimed.

IT 605661-11-8P, 2-Amino-5-methyl-4-(4-nitrophenyl)thiophene-3-carbonitrile 607713-63-3P, 2-Amino-5-[2-(dimethylamino)ethyl]-4-(4-nitrophenyl)-3-thiophenecarbonitrile
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of thienopyrimidine and isothiazolopyrimidine kinase inhibitors)

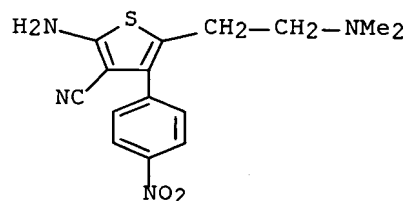
RN 605661-11-8 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-5-methyl-4-(4-nitrophenyl)- (CA INDEX NAME)



RN 607713-63-3 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-5-[2-(dimethylamino)ethyl]-4-(4-nitrophenyl)- (CA INDEX NAME)



L13 ANSWER 4 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:950111 CAPLUS Full-text

DOCUMENT NUMBER: 140:5066

TITLE: Preparation of thienopyrimidine and
isothiazolopyrimidine kinase inhibitorsINVENTOR(S): Michaelides, Michael R.; Curtin, Michael L.; Dai,
Yujia; Davidsen, Steven K.; Frey, Robin R.; Guo, Yan;
Ji, Zhiqin

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 63 pp., Cont.-in-part of U.S.
Ser. No. 103,621.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

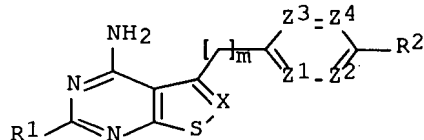
FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

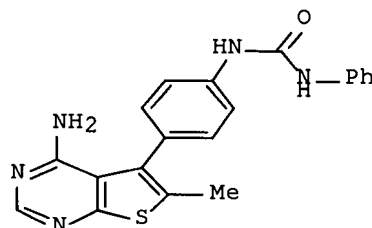
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| US 2003225273 | A1 | 20031204 | US 2003-378481 | 20030303 <-- |
| US 2003181468 | A1 | 20030925 | US 2002-103621 | 20020321 <-- |
| CA 2479363 | A1 | 20031002 | CA 2003-2479363 | 20030320 <-- |
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| AU 2003220437 | A1 | 20031008 | AU 2003-220437 | 20030320 <-- |
| EP 1487841 | A1 | 20041222 | EP 2003-716742 | 20030320 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| JP 2005526804 | T | 20050908 | JP 2003-578379 | 20030320 |
| MX 2004PA09142 | A | 20041126 | MX 2004-PA9142 | 20040921 |
| PRIORITY APPLN. INFO.: | | | US 2002-103621 | A2 20020321 |
| | | | US 2003-378481 | A 20030303 |
| | | | WO 2003-US8647 | W 20030320 |

OTHER SOURCE(S): MARPAT 140:5066

GI



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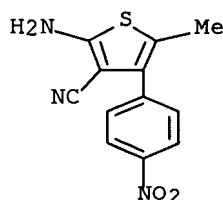
II

AB The title compds. [I; X = N, CR3; Z1 = N, CR4; Z2 = N, CR5; Z3 = N, CR6; Z4 = N, CR7; R1 = H, NH2; R2 = alkoxy, CN, OH, NO2, etc.; R3 = H, alkenyl, alkoxyalkyl, alkyl, etc.; R4-R7 = H, alkoxy, alkyl, halo, etc.; m = 0-2; provided that at least one of Z1-Z4 is other than N], useful for inhibiting protein tyrosine kinases, were prepared Thus, treating 5-(4-aminophenyl)-6-methylthieno[2,3-d]pyrimidin-4-amine (preparation given) with Ph isocyanate in CH2Cl2 afforded 87% II. The compds. I inhibited KDR at IC50's between about 0.003 μ M and >50 μ M, and Tie-2 at IC50's between about 0.01 μ M and >50 μ M. Pharmaceutical composition comprising the compound I was claimed.

IT 605661-11-8P, 2-Amino-5-methyl-4-(4-nitrophenyl)thiophene-3-carbonitrile 607713-63-3P, 2-Amino-5-[2-(dimethylamino)ethyl]-4-(4-nitrophenyl)-3-thiophenecarbonitrile
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of thienopyrimidine and isothiazolopyrimidine kinase inhibitors)

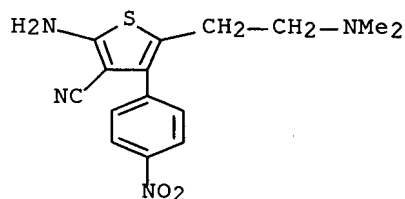
RN 605661-11-8 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-5-methyl-4-(4-nitrophenyl)- (CA INDEX NAME)



RN 607713-63-3 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-5-[2-(dimethylamino)ethyl]-4-(4-nitrophenyl)- (CA INDEX NAME)



L13 ANSWER 5 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:777807 CAPLUS Full-text

DOCUMENT NUMBER: 139:292267

TITLE: Preparation of thienopyrimidine and isothiazolopyrimidine kinase inhibitors

INVENTOR(S): Michaelides, Michael R.; Dai, Yujia; Davidsen, Steven K.; Frey, Robin R.; Guo, Yan; Ji, Zhiqin; Curtin, Michael

PATENT ASSIGNEE(S): Abbott Laboratories, USA

SOURCE: PCT Int. Appl., 142 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

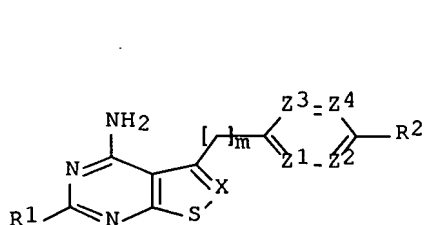
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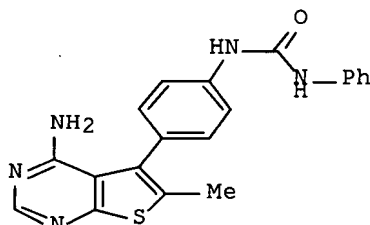
FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

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| WO 2003080625 | A1 | 20031002 | WO 2003-US8647 | 20030320 <-- |
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| US 2003181468 | A1 | 20030925 | US 2002-103621 | 20020321 <-- |
| US 2003225273 | A1 | 20031204 | US 2003-378481 | 20030303 <-- |
| CA 2479363 | A1 | 20031002 | CA 2003-2479363 | 20030320 <-- |
| AU 2003220437 | A1 | 20031008 | AU 2003-220437 | 20030320 <-- |
| EP 1487841 | A1 | 20041222 | EP 2003-716742 | 20030320 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | |
| JP 2005526804 | T | 20050908 | JP 2003-578379 | 20030320 |
| MX 2004PA09142 | A | 20041126 | MX 2004-PA9142 | 20040921 |
| PRIORITY APPLN. INFO.: | | | US 2002-103621 | A 20020321 |
| | | | US 2003-378481 | A 20030303 |
| | | | WO 2003-US8647 | W 20030320 |
| OTHER SOURCE(S): | | MARPAT 139:292267 | | |
| GI | | | | |



I



II

- AB The title compds. [I; X = N, CR3; Z1 = N, CR4; Z2 = N, CR5; Z3 = N, CR6; Z4 = N, CR7; R1 = H, NH2; R2 = alkoxy, CN, OH, NO2, etc.; R3 = H, alkenyl, alkoxyalkyl, alkyl, etc.; R4-R7 = H, alkoxy, alkyl, halo, etc.; m = 0-2; provided that at least one of Z1-Z4 is other than N], useful for inhibiting protein tyrosine kinases, were prepared. Thus, treating 5-(4-aminophenyl)-6-methylthieno[2,3-d]pyrimidin-4-amine (preparation given) with Ph isocyanate in CH2Cl2 afforded 87% II. The compds. I inhibited KDR at IC50's between about 0.003 μ M and >50 μ M, and Tie-2 at IC50's between about 0.01 μ M and >50 μ M. Pharmaceutical composition comprising the compound I was claimed.
- IT 605661-11-8P, 2-Amino-5-methyl-4-(4-nitrophenyl)thiophene-3-

10/596419

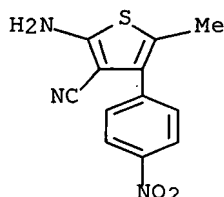
carbonitrile 607713-63-3P, 2-Amino-5-[2-(dimethylamino)ethyl]-4-(4-nitrophenyl)-3-thiophenecarbonitrile

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of thienopyrimidine and isothiazolopyrimidine kinase inhibitors)

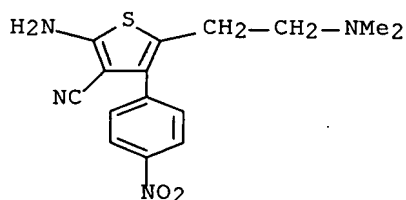
RN 605661-11-8 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-5-methyl-4-(4-nitrophenyl)- (CA INDEX NAME)



RN 607713-63-3 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-5-[2-(dimethylamino)ethyl]-4-(4-nitrophenyl)- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:757330 CAPLUS Full-text

DOCUMENT NUMBER: 139:276912

TITLE: Preparation of thienopyrimidine and isothiazolopyrimidine kinase inhibitors

INVENTOR(S): Michaelides, Michael R.; Dai, Yujia; Davidsen, Steven K.; Frey, Robin R.; Guo, Yan; Ji, Zhiqin; Arnold, Lee D.; Wishart, Neil

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 36 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

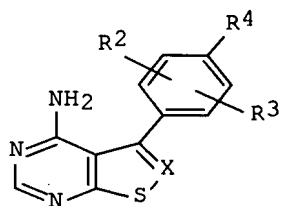
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

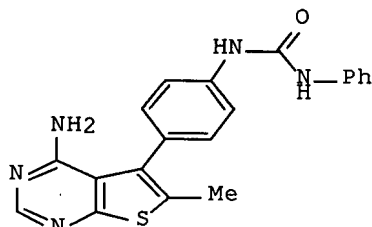
PATENT INFORMATION:

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| US 2003181468 | A1 | 20030925 | US 2002-103621 | 20020321 <-- |
| US 2003225273 | A1 | 20031204 | US 2003-378481 | 20030303 <-- |

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| CA 2479363 | A1 | 20031002 | CA 2003-2479363 | 20030320 <-- |
| WO 2003080625 | A1 | 20031002 | WO 2003-US8647 | 20030320 <-- |
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| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
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| JP 2005526804 | T | 20050908 | JP 2003-578379 | 20030320 |
| MX 2004PA09142 | A | 20041126 | MX 2004-PA9142 | 20040921 |
| PRIORITY APPLN. INFO.: | | | | |
| | | | US 2002-103621 | A2 20020321 |
| | | | US 2003-378481 | A 20030303 |
| | | | WO 2003-US8647 | W 20030320 |
| OTHER SOURCE(S): MARPAT 139:276912 | | | | |
| GI | | | | |



I



II

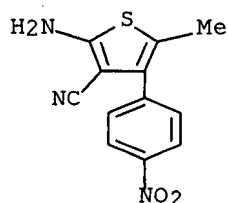
AB The title compds. [I; X = N, CR1; R1 = H, alkoxyalkyl, alkyl, etc.; R2, R3 = H, alkoxy, alkyl, NH2, halo; R4 = alkoxy, NH2, CN, OH, NO2, LR5; R5 = aryl, arylalkyl, heteroaryl, etc.; L = O, CO, CONR6, NR6CO, etc.; R6 = H, alkyl, aryl], useful for inhibiting protein tyrosine kinases, were prepared Thus, treating 5-(4-aminophenyl)-6-methylthieno[2,3-d]pyrimidin-4-amine (preparation given) with Ph isocyanate in CH2Cl2 afforded 87% II. The compds. I inhibited KDR at IC50's between about 0.005 μ M and >50 μ M, and Tie-2 at IC50's between about 0.02 μ M and >50 μ M. Pharmaceutical composition comprising the compound I was claimed.

IT 605661-11-8P, 2-Amino-5-methyl-4-(4-nitrophenyl)thiophene-3-carbonitrile

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of thienopyrimidine and isothiazolopyrimidine kinase inhibitors)

RN 605661-11-8 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-5-methyl-4-(4-nitrophenyl)- (CA INDEX NAME)



L13 ANSWER 7 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:570977 CAPLUS Full-text

DOCUMENT NUMBER: 139:117343

TITLE: Preparation of 4-aminopyridines for use in pest control

INVENTOR(S): Maurer, Fritz; Erdelen, Christoph; Kuck, Karl-Heinz; Mauler-Machnik, Astrid; Wachendorff-Neumann, Ulrike; Turberg, Andreas

PATENT ASSIGNEE(S): Bayer CropScience AG, Germany

SOURCE: PCT Int. Appl., 83 pp.

CODEN: PIXXD2

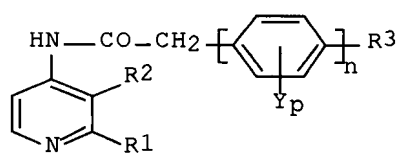
DOCUMENT TYPE: Patent

LANGUAGE: German

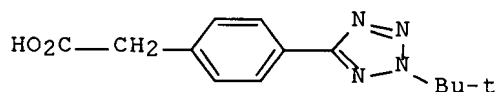
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

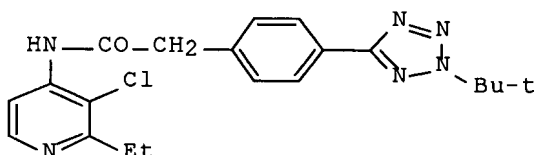
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|-------------------|------------------|--------------|
| WO 2003059903 | A2 | 20030724 | WO 2003-EP51 | 20030107 <-- |
| WO 2003059903 | A3 | 20031211 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| DE 10201764 | A1 | 20030731 | DE 2002-10201764 | 20020118 <-- |
| AU 2003235696 | A1 | 20030730 | AU 2003-235696 | 20030107 <-- |
| PRIORITY APPLN. INFO.: | | | DE 2002-10201764 | A 20020118 |
| | | | WO 2003-EP51 | W 20030107 |
| OTHER SOURCE(S): | | MARPAT 139:117343 | | |
| GI | | | | |



I



II



III

AB Title compds. I [R1 = alkyl; R2 = halo; R3 = heterocycle; n = 1, 2; Y = halo, alkyl, haloalkyl; p = 0-2] were prepared. For example, coupling of carboxylic acid II, e.g., prepared from 4-cyanophenylacetic acid in 2-steps, and 2-ethyl-3-chloro-4-aminopyridine afforded aminopyridine III in 18% yield. In aphid gossypii pesticidal studies with gossypium hirsutum, aminopyridine III, at 500 ppm, exhibited 100% aphid mortality after 6-days. Compds. I are claimed useful for the control of microorganisms.

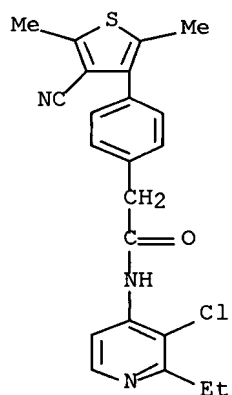
IT 565233-57-0P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compound; preparation of 4-aminopyridines for use in pest control)

RN 565233-57-0 CAPLUS

CN Benzeneacetamide, N-(3-chloro-2-ethyl-4-pyridinyl)-4-(4-cyano-2,5-dimethyl-3-thienyl)- (CA INDEX NAME)



L13 ANSWER 8 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:170350 CAPLUS Full-text

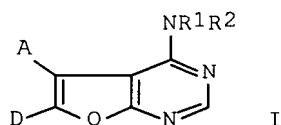
DOCUMENT NUMBER: 138:221596

TITLE: Preparation of 4-aminofuro[2,3-d]pyrimidines as adenosine kinase inhibitors

INVENTOR(S): Bischoff, Erwin; Hauswald, Markus; Nell, Peter; Roehrig, Susanne; Schlemmer, Karl-Heinz; Steinhagen,

Henning; Stoltefuss, Juergen; Weigand, Stefan
 PATENT ASSIGNEE(S): Bayer AG, Germany
 SOURCE: Ger. Offen., 80 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-------------------|--------------|
| DE 10141212 | A1 | 20030306 | DE 2001-10141212 | 20010822 <-- |
| WO 2003018589 | A1 | 20030306 | WO 2002-EP8906 | 20020809 <-- |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 200233371 | A1 | 20030310 | AU 2002-333371 | 20020809 <-- |
| EP 1425283 | A1 | 20040609 | EP 2002-796211 | 20020809 |
| EP 1425283 | B1 | 20050316 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| JP 2005501122 | T | 20050113 | JP 2003-523249 | 20020809 |
| AT 291024 | T | 20050415 | AT 2002-796211 | 20020809 |
| ES 2239732 | T3 | 20051001 | ES 2002-2796211 | 20020809 |
| US 2004259888 | A1 | 20041223 | US 2004-487373 | 20040719 |
| PRIORITY APPLN. INFO.: | | | DE 2001-10141212 | A 20010822 |
| | | | WO 2002-EP8906 | W 20020809 |
| OTHER SOURCE(S): | | | MARPAT 138:221596 | |
| GI | | | | |



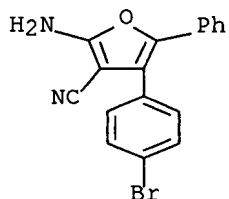
- AB Title compds. [I; A = (substituted) Ph, 5-6 membered heteroaryl, etc.; D = -G-E-R3, etc.; G = (substituted) phenylene, 5-6 membered heteroaryl; E = bond, CO, SO2, NR4CO, NR4SO2; R4 = H, alkyl; R3 = halo, CF3, OH, alkoxy, OCF3, NO2, etc.; R1 = H, (substituted) cycloalkyl, alkyl; R2 = (substituted) alkyl, aryl, heteroaryl, heterocyclyl, cycloalkyl, etc.; NR1R2 = (substituted) 4-11 membered mono-, bi-, or spirocyclic heterocyclyl], were prepared Thus, 4-chloro-6-(3,5-dimethoxyphenyl)-5-phenylfuro[2,3-d]pyrimidine (preparation given) in EtOH was stirred with cycloheptylamine for 2 h at 40° followed by stirring with 1 N NaOH for 4 h at 90° and stirring over night to give 77% N-cycloheptyl-6-(3,5-dimethoxyphenyl)-5-phenylfuro[2,3-d]pyrimidine-4-amine. Several I inhibited adenosine kinase with IC50 = 10-100 nM in vitro.
- IT 14774-61-9P 500712-34-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

10/596419

(preparation of aminofuopyrimidines as adenosine kinase inhibitors)

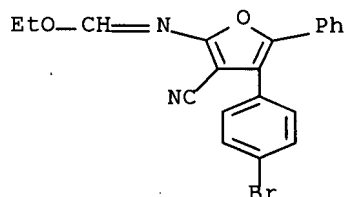
RN 14774-61-9 CAPLUS

CN 3-Furancarbonitrile, 2-amino-4-(4-bromophenyl)-5-phenyl- (9CI) (CA INDEX NAME)



RN 500712-34-5 CAPLUS

CN Methanimidic acid, N-[4-(4-bromophenyl)-3-cyano-5-phenyl-2-furanyl]-, ethyl ester (CA INDEX NAME)



L13 ANSWER 9 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:814126 CAPLUS Full-text

DOCUMENT NUMBER: 137:325327

TITLE: Preparation of thienyl-substituted pyrimidinyl, pyridinyl and triazinyl amines as inhibitors of c-Jun N-terminal kinases (JNK) and other protein kinases
INVENTOR(S): Cao, Jingrong; Green, Jeremy; Moon, Young-Choon; Wang, Jian; Ledebor, Mark; Harrington, Edmund; Gao, Huai

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 137 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|--------------|
| WO 2002083667 | A2 | 20021024 | WO 2002-US11570 | 20020410 <-- |
| WO 2002083667 | A3 | 20030103 | | |
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| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, | | | |

CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

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|---------------|----|----------|-----------------|--------------|
| CA 2443487 | A1 | 20021024 | CA 2002-2443487 | 20020410 <-- |
| AU 2002338642 | A1 | 20021028 | AU 2002-338642 | 20020410 <-- |
| US 2003096816 | A1 | 20030522 | US 2002-121035 | 20020410 <-- |
| US 6642227 | B2 | 20031104 | | |
| EP 1389206 | A2 | 20040218 | EP 2002-762067 | 20020410 |
| EP 1389206 | B1 | 20060913 | | |

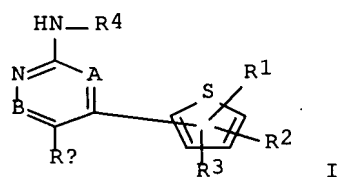
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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|----------------|----|----------|------------------|--------------|
| JP 2004535381 | T | 20041125 | JP 2002-581422 | 20020410 |
| AT 339416 | T | 20061015 | AT 2002-762067 | 20020410 |
| ES 2271322 | T3 | 20070416 | ES 2002-2762067 | 20020410 |
| TW 235752 | B | 20050711 | TW 2002-91107461 | 20020412 |
| US 2004023963 | A1 | 20040205 | US 2003-437666 | 20030514 |
| US 7084159 | B2 | 20060801 | | |
| MX 2003PA09378 | A | 20040129 | MX 2003-PA9378 | 20031013 <-- |

PRIORITY APPLN. INFO.:

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|-----------------|----|----------|
| US 2001-283621P | P | 20010413 |
| US 2001-292974P | P | 20010523 |
| US 2001-329440P | P | 20011015 |
| US 2002-121035 | A3 | 20020410 |
| WO 2002-US11570 | W | 20020410 |

OTHER SOURCE(S): MARPAT 137:325327
 GI



- AB The present invention provides thienyl-substituted pyrimidinyl, pyridinyl and triazinyl amines (shown as I, e.g. 2-methylsulfanyl-5-(2-phenylaminopyrimidin-4-yl)-4-(4-chlorophenyl)thiophene-3-carbonitrile): or a pharmaceutically acceptable derivative thereof, wherein A, B, Ra, R1, R2, R3 and R4 are as described in the specification. These compds. are inhibitors of protein kinase, particularly inhibitors of JNK, a mammalian protein kinase involved in cell proliferation, cell death and response to extracellular stimuli; Lck and Src kinase. The invention also provides pharmaceutical compns. comprising the inhibitors of the invention and methods of using those compns. in the treatment and prevention of various disorders. Although the methods of preparation are not claimed, 42 example prepsns. of intermediates and I are included. Results of JNK, Src and Lck inhibition are tabulated for many I.
- IT 473530-67-5P, 2-(Methylsulfanyl)-5-(2-(phenylamino)pyrimidin-4-yl)-4-(4-chlorophenyl)thiophene-3-carbonitrile 473530-70-0P, 2-(Methylsulfanyl)-5-(2-(phenylamino)pyrimidin-4-yl)-4-p-tolylthiophene-3-carbonitrile 473531-03-2P, 2-(Methylthio)-5-(2-aminopyrimidin-4-yl)-4-(4-carboxyphenyl)thiophene-3-carbonitrile 473531-04-3P, 2-(Methylthio)-5-(2-aminopyrimidin-4-yl)-4-(4-chlorophenyl)thiophene-3-carbonitrile 473531-05-4P, 2-(Methylthio)-5-(2-aminopyrimidin-4-yl)-4-(4-(trifluoromethyl)phenyl)thiophene-3-carbonitrile 473531-06-5P, 2-(Methylthio)-5-(2-aminopyrimidin-4-yl)-4-(4-methylphenyl)thiophene-3-carbonitrile 473531-08-7P,

2-(Methylthio)-5-(2-aminopyrimidin-4-yl)-4-(4-methoxyphenyl)thiophene-3-carbonitrile 473531-09-8P 473531-11-2P
 473531-12-3P, 2-(Methylthio)-5-(2-(phenylamino)pyrimidin-4-yl)-4-(4-(trifluoromethyl)phenyl)thiophene-3-carbonitrile 473532-07-9P
 , 2-(Methylthio)-4-(4-carboxyphenyl)-5-(2-aminopyridin-4-yl)thiophene-3-carbonitrile 473532-08-0P, 2-(Methylthio)-4-(4-chlorophenyl)-5-(2-aminopyridin-4-yl)thiophene-3-carbonitrile 473532-09-1P,
 2-(Methylthio)-4-(4-(trifluoromethyl)phenyl)-5-(2-aminopyridin-4-yl)thiophene-3-carbonitrile 473532-10-4P, 2-(Methylthio)-4-(4-methylphenyl)-5-(2-aminopyridin-4-yl)thiophene-3-carbonitrile 473532-12-6P,
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 2-(Benzylamino)-4-(4-methoxyphenyl)-5-(2-aminopyridin-4-yl)thiophene-3-carbonitrile 473532-16-0P,
 2-(Methylthio)-4-(4-chlorophenyl)-5-(2-(phenylamino)pyridin-4-yl)thiophene-3-carbonitrile 473532-18-2P, 2-(Methylthio)-4-(4-(trifluoromethyl)phenyl)-5-(2-(phenylamino)pyridin-4-yl)thiophene-3-carbonitrile 473532-20-6P,
 2-(Methylthio)-4-(4-methylphenyl)-5-(2-(phenylamino)pyridin-4-yl)thiophene-3-carbonitrile 473532-39-7P
 , 2-(Methylthio)-4-(4-carboxyphenyl)-5-(3-amino-1,2,4-triazin-5-yl)thiophene-3-carbonitrile 473532-40-0P, 2-(Methylthio)-4-(4-chlorophenyl)-5-(3-amino-1,2,4-triazin-5-yl)thiophene-3-carbonitrile 473532-41-1P,
 2-(Methylthio)-4-(4-(trifluoromethyl)phenyl)-5-(3-amino-1,2,4-triazin-5-yl)thiophene-3-carbonitrile 473532-42-2P,
 2-(Methylthio)-4-(4-methylphenyl)-5-(3-amino-1,2,4-triazin-5-yl)thiophene-3-carbonitrile 473532-44-4P, 2-(Methylthio)-4-(4-methoxyphenyl)-5-(3-amino-1,2,4-triazin-5-yl)thiophene-3-carbonitrile 473532-45-5P,
 2-(Benzylamino)-4-(4-(trifluoromethyl)phenyl)-5-(3-amino-1,2,4-triazin-5-yl)thiophene-3-carbonitrile 473532-47-7P,
 2-(Benzylamino)-4-(4-methoxyphenyl)-5-(3-amino-1,2,4-triazin-5-yl)thiophene-3-carbonitrile 473532-48-8P, 2-(Methylthio)-4-(4-chlorophenyl)-5-(3-(phenylamino)-1,2,4-triazin-5-yl)thiophene-3-carbonitrile 473532-50-2P,
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 2-(Methylthio)-4-(4-methylphenyl)-5-(3-(phenylamino)-1,2,4-triazin-5-yl)thiophene-3-carbonitrile 473532-82-0P,
 2-(Methylthio)-4-(4-methylphenyl)-5-(2-((3-(benzyloxy)phenyl)amino)-5-methylpyrimidin-4-yl)thiophene-3-carbonitrile 473532-83-1P,
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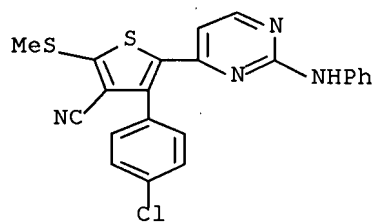
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of thienyl-substituted pyrimidinyl, pyridinyl and triazinyl amines as inhibitors of JNK and other protein kinases)

RN 473530-67-5 CAPLUS

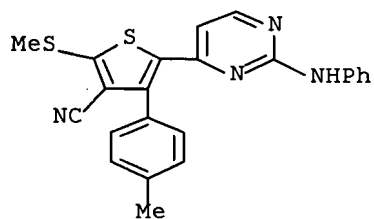
CN 3-Thiophenecarbonitrile, 4-(4-chlorophenyl)-2-(methylthio)-5-[2-(phenylamino)-4-pyrimidinyl]- (CA INDEX NAME)

10/596419



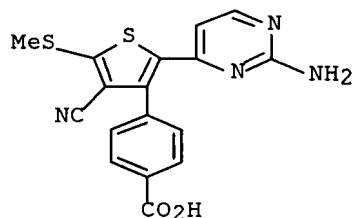
RN 473530-70-0 CAPLUS

CN 3-Thiophenecarbonitrile, 4-(4-methylphenyl)-2-(methylthio)-5-[2-(phenylamino)-4-pyrimidinyl]- (CA INDEX NAME)



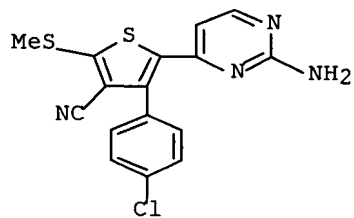
RN 473531-03-2 CAPLUS

CN Benzoic acid, 4-[2-(2-amino-4-pyrimidinyl)-4-cyano-5-(methylthio)-3-thienyl]- (CA INDEX NAME)



RN 473531-04-3 CAPLUS

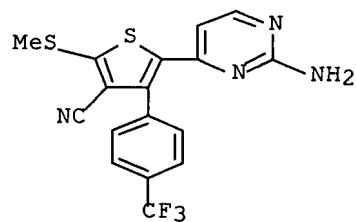
CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyrimidinyl)-4-(4-chlorophenyl)-2-(methylthio)- (CA INDEX NAME)



10/596419

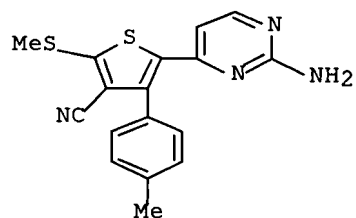
RN 473531-05-4 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyrimidinyl)-2-(methylthio)-4-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



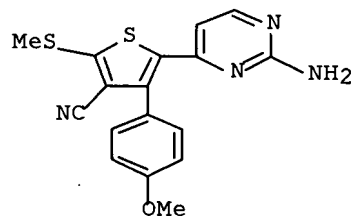
RN 473531-06-5 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyrimidinyl)-4-(4-methylphenyl)-2-(methylthio)- (CA INDEX NAME)



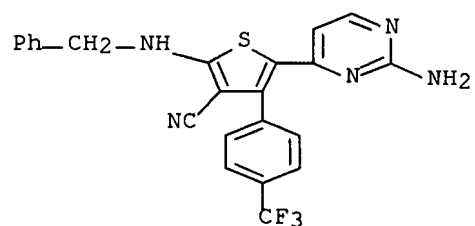
RN 473531-08-7 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyrimidinyl)-4-(4-methoxyphenyl)-2-(methylthio)- (CA INDEX NAME)



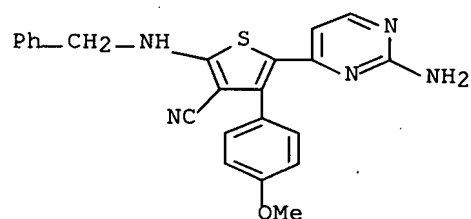
RN 473531-09-8 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyrimidinyl)-2-[(phenylmethyl)amino]-4-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



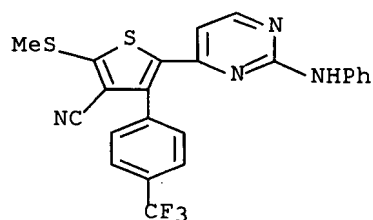
RN 473531-11-2 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyrimidinyl)-4-(4-methoxyphenyl)-2-[(phenylmethyl)amino]- (CA INDEX NAME)



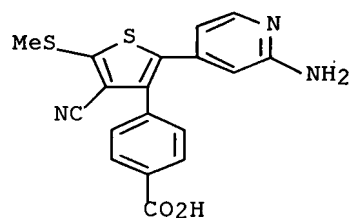
RN 473531-12-3 CAPLUS

CN 3-Thiophenecarbonitrile, 2-(methylthio)-5-[2-(phenylamino)-4-pyrimidinyl]-4-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



RN 473532-07-9 CAPLUS

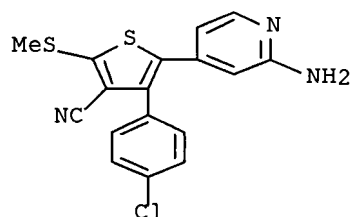
CN Benzoic acid, 4-[2-(2-amino-4-pyridinyl)-4-cyano-5-(methylthio)-3-thienyl]- (CA INDEX NAME)



10/596419

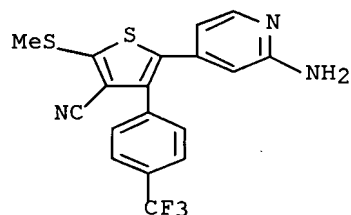
RN 473532-08-0 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyridinyl)-4-(4-chlorophenyl)-2-(methylthio)- (CA INDEX NAME)



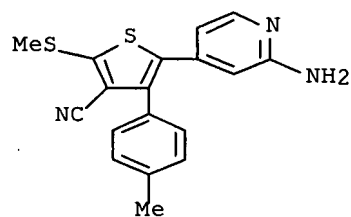
RN 473532-09-1 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyridinyl)-2-(methylthio)-4-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



RN 473532-10-4 CAPLUS

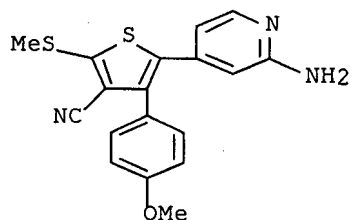
CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyridinyl)-4-(4-methylphenyl)-2-(methylthio)- (CA INDEX NAME)



RN 473532-12-6 CAPLUS

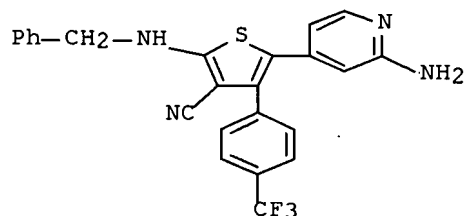
CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyridinyl)-4-(4-methoxyphenyl)-2-(methylthio)- (CA INDEX NAME)

10/596419



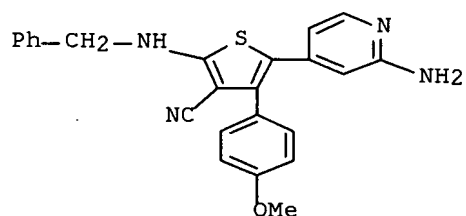
RN 473532-13-7 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyridinyl)-2-[(phenylmethyl)amino]-4-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



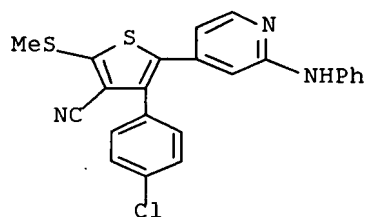
RN 473532-15-9 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(2-amino-4-pyridinyl)-4-(4-methoxyphenyl)-2-[(phenylmethyl)amino]- (CA INDEX NAME)



RN 473532-16-0 CAPLUS

CN 3-Thiophenecarbonitrile, 4-(4-chlorophenyl)-2-(methylthio)-5-[2-(phenylamino)-4-pyridinyl]- (CA INDEX NAME)

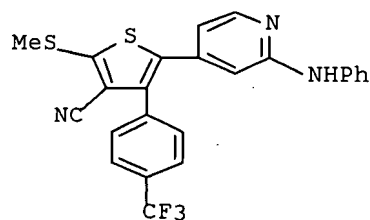


RN 473532-18-2 CAPLUS

CN 3-Thiophenecarbonitrile, 2-(methylthio)-5-[2-(phenylamino)-4-pyridinyl]-4-

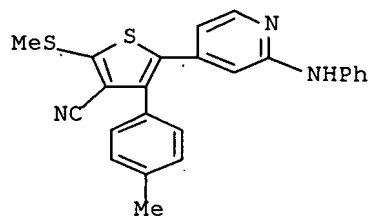
10/596419

[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



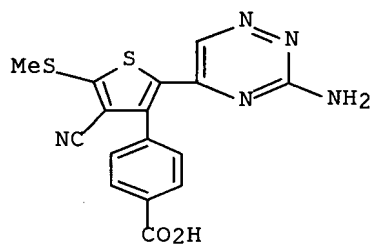
RN 473532-20-6 CAPLUS

CN 3-Thiophenecarbonitrile, 4-(4-methylphenyl)-2-(methylthio)-5-[2-(phenylamino)-4-pyridinyl]- (CA INDEX NAME)



RN 473532-39-7 CAPLUS

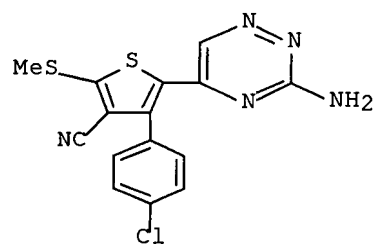
CN Benzoic acid, 4-[2-(3-amino-1,2,4-triazin-5-yl)-4-cyano-5-(methylthio)-3-thienyl]- (CA INDEX NAME)



RN 473532-40-0 CAPLUS

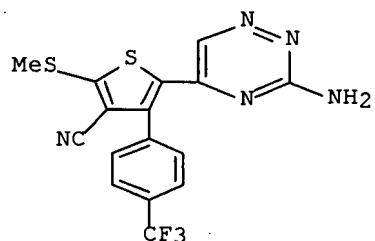
CN 3-Thiophenecarbonitrile, 5-(3-amino-1,2,4-triazin-5-yl)-4-(4-chlorophenyl)-2-(methylthio)- (CA INDEX NAME)

10/596419



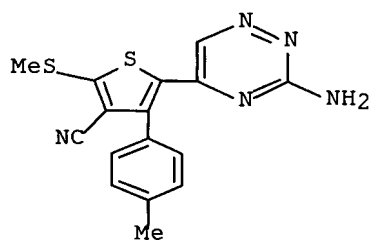
RN 473532-41-1 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(3-amino-1,2,4-triazin-5-yl)-2-(methylthio)-4-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



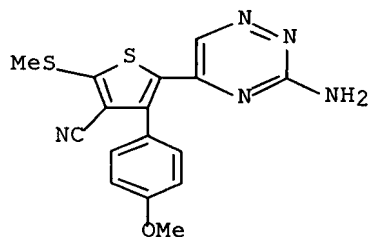
RN 473532-42-2 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(3-amino-1,2,4-triazin-5-yl)-4-(4-methylphenyl)-2-(methylthio)- (CA INDEX NAME)



RN 473532-44-4 CAPLUS

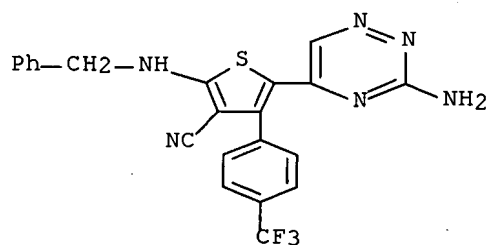
CN 3-Thiophenecarbonitrile, 5-(3-amino-1,2,4-triazin-5-yl)-4-(4-methoxyphenyl)-2-(methylthio)- (CA INDEX NAME)



10/596419

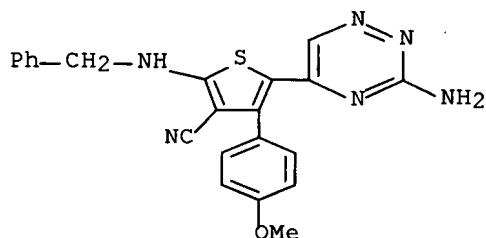
RN 473532-45-5 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(3-amino-1,2,4-triazin-5-yl)-2-[(phenylmethyl)amino]-4-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



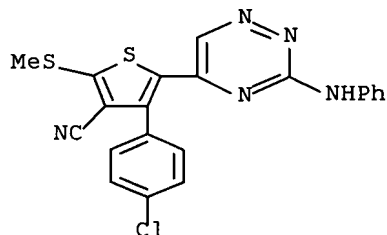
RN 473532-47-7 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(3-amino-1,2,4-triazin-5-yl)-4-(4-methoxyphenyl)-2-[(phenylmethyl)amino]- (CA INDEX NAME)



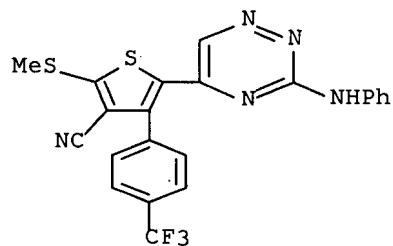
RN 473532-48-8 CAPLUS

CN 3-Thiophenecarbonitrile, 4-(4-chlorophenyl)-2-(methylthio)-5-[3-(phenylamino)-1,2,4-triazin-5-yl]- (CA INDEX NAME)



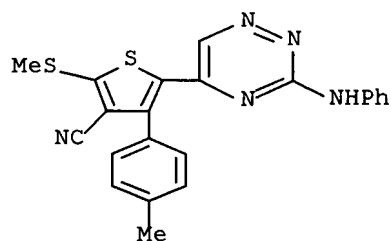
RN 473532-50-2 CAPLUS

CN 3-Thiophenecarbonitrile, 2-(methylthio)-5-[3-(phenylamino)-1,2,4-triazin-5-yl]-4-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



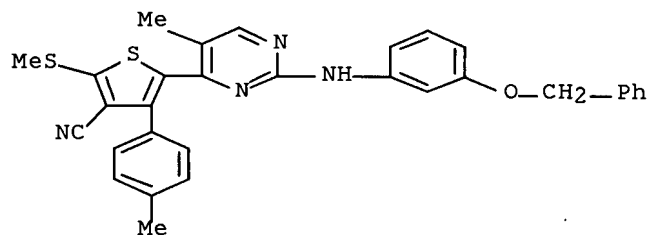
RN 473532-52-4 CAPLUS

CN 3-Thiophenecarbonitrile, 4-(4-methylphenyl)-2-(methylthio)-5-[3-(phenylamino)-1,2,4-triazin-5-yl]- (CA INDEX NAME)



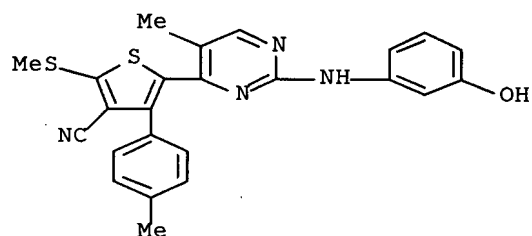
RN 473532-82-0 CAPLUS

CN 3-Thiophenecarbonitrile, 4-(4-methylphenyl)-5-[5-methyl-2-[[3-(phenylmethoxy)phenyl]amino]-4-pyrimidinyl]-2-(methylthio)- (CA INDEX NAME)



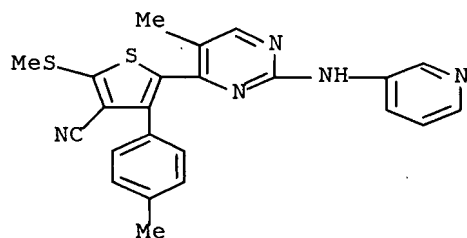
RN 473532-83-1 CAPLUS

CN 3-Thiophenecarbonitrile, 5-[2-[(3-hydroxyphenyl)amino]-5-methyl-4-pyrimidinyl]-4-(4-methylphenyl)-2-(methylthio)- (CA INDEX NAME)



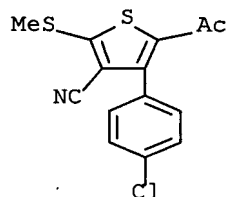
RN 473532-84-2 CAPLUS

CN 3-Thiophenecarbonitrile, 4-(4-methylphenyl)-5-[5-methyl-2-(3-pyridinylamino)-4-pyrimidinyl]-2-(methylthio)- (CA INDEX NAME)



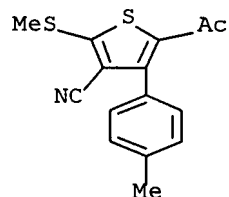
IT 63244-11-1P, 5-Acetyl-2-(methylsulfanyl)-4-(4-chlorophenyl)thiophene-3-carbonitrile 473530-69-7P,
 5-Acetyl-2-(methylsulfanyl)-4-(4-methylphenyl)thiophene-3-carbonitrile
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (intermediate; preparation of thienyl-substituted pyrimidinyl, pyridinyl and
 triazinyl amines as inhibitors of JNK and other protein kinases)

RN 63244-11-1 CAPLUS

CN 3-Thiophenecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-2-(methylthio)- (9CI)
 (CA INDEX NAME)

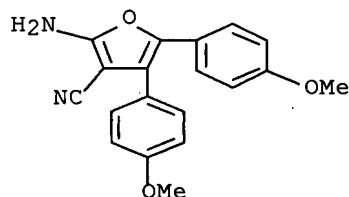
RN 473530-69-7 CAPLUS

CN 3-Thiophenecarbonitrile, 5-acetyl-4-(4-methylphenyl)-2-(methylthio)- (CA INDEX NAME)

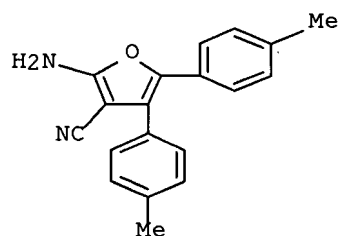


10/596419

DOCUMENT NUMBER: 138:265139
TITLE: Synthesis and acetylcholinesterase/butyrylcholinesterase inhibition activity of 4-amino-2,3-diaryl-5,6,7,8-tetrahydrofuro(and thieno)[2,3-b]-quinolines, and 4-amino-5,6,7,8,9-pentahydro-2,3-diphenylcyclohepta[e]furo(and thieno)-[2,3-b]pyridines
AUTHOR(S): Marco, Jose L.; De los Rios, Cristobal; Carreiras, Maria C.; Banos, Josep E.; Badia, Albert; Vivas, Nuria M.
CORPORATE SOURCE: Laboratorio de Radicales Libres, Madrid, 28006, Spain
SOURCE: Archiv der Pharmazie (Weinheim, Germany) (2002), 335(7), 347-353
CODEN: ARPMAS; ISSN: 0365-6233
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:265139
AB The acetylcholinesterase (AChE) and butyrylcholinesterase (BuChE) inhibition activities of a series of 4-amino-2,3-diaryl-5,6,7,8-tetrahydrofuro[2,3-b]quinolines (10-12)/4-amino-5,6,7,8-tetrahydro-2,3-diphenylthieno[2,3-b]quinoline (14) and 4-amino-5,6,7,8,9-pentahydro-2,3-diphenylcyclohepta[e]furo[2,3-b]pyridine (13)/4-amino-5,6,7,8,9-pentahydro-2,3-phenylcyclohepta[e]thieno[2,3-b]pyridine (15) are described. These compds. are tacrine (THA) analogs which have been prepared either from readily available 2-amino-3-cyano-4,5-diarylfurans (16-18) or from 2-amino-3-cyano-4,5-diphenylthiophene (19), via Friedlander condensation with cyclohexanone or cycloheptanone. These compds. are competitive inhibitors for acetylcholinesterase, the more potent being compound (13) which is three-fold less active than tacrine. The butyrylcholinesterase inhibition activity is significant only in some compds. which are ten-fold less active than tacrine. It is found that the some products strongly inhibit acetylcholinesterase, and show excellent selectivity regarding butyrylcholinesterase.
IT 94556-80-6 187793-06-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and acetylcholinesterase/butyrylcholinesterase inhibition activity of tacrine analogs in relation to structure)
RN 94556-80-6 CAPLUS
CN 3-Furancarbonitrile, 2-amino-4,5-bis(4-methoxyphenyl)- (CA INDEX NAME)



RN 187793-06-2 CAPLUS
CN 3-Furancarbonitrile, 2-amino-4,5-bis(4-methylphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 11 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:583531 CAPLUS Full-text

DOCUMENT NUMBER: 138:313877

TITLE: Design, synthesis and bioactivities of novel diarylthiophenes: inhibitors of tumor necrosis factor- α (TNF- α) production

AUTHOR(S): Fujita, Masakazu; Hirayama, Tetsuya; Ikeda, Naoko

CORPORATE SOURCE: Pharmaceutical Research Laboratories, Nikken Chemicals Co., Ltd., Saitama-shi, Saitama, 330-0835, Japan

SOURCE: Bioorganic & Medicinal Chemistry (2002), 10(10), 3113-3122

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:313877

AB The design, synthesis and SAR of novel diarylthiophene derivs. were performed. These compds. were designed by structural hybridization of TNF- α production inhibitors bearing 4-fluorophenyl and 4-pyridyl groups such as FR133605, FR167653 and SB210313, and 6-acetyl-3-ethoxycarbonyl- 4,5,6,7-tetrahydrothieno[2,3-c]pyridine found previously by us. As a result, several compds. were more potent in vitro than FR133605 against TNF- α production stimulated with lipopolysaccharide.

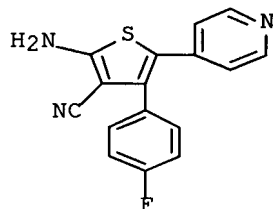
IT 512786-12-8P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(design, synthesis and bioactivities of novel diarylthiophenes as inhibitors of tumor necrosis factor- α production)

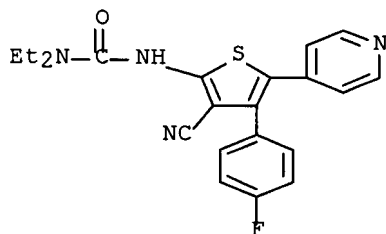
RN 512786-12-8 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-4-(4-fluorophenyl)-5-(4-pyridinyl)- (CA INDEX NAME)



10/596419

IT 512786-19-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(design, synthesis and bioactivities of novel diarylthiophenes as inhibitors of tumor necrosis factor- α production)
RN 512786-19-5 CAPLUS
CN Urea, N'-[3-cyano-4-(4-fluorophenyl)-5-(4-pyridinyl)-2-thienyl]-N,N-diethyl- (CA INDEX NAME)

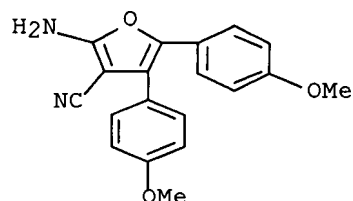


REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 12 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:251296 CAPLUS Full-text
DOCUMENT NUMBER: 137:210405
TITLE: Novel tacrine derivatives that block neuronal calcium channels
AUTHOR(S): de los Rios, Cristobal; Marco, Jose L.; Carreiras, Maria D. C.; Chinchon, P. M.; Garcia, Antonio G.; Villarroya, Mercedes
CORPORATE SOURCE: Facultad de Medicina, Departamento de Farmacologia, Instituto Teofilo Hernando, Universidad Autonoma de Madrid, Madrid, 28029, Spain
SOURCE: Bioorganic & Medicinal Chemistry (2002), 10(6), 2077-2088
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:210405

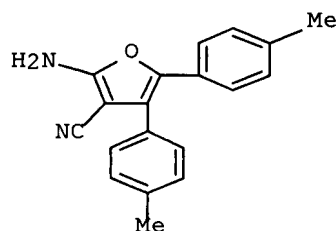
AB A new series of tacrine (9-amino-1,2,3,4-tetrahydroacridine) derivs. were synthesized and their effects on 45Ca^{2+} entry into bovine adrenal chromaffin cells stimulated with dimethylphenylpiperazinium (DMPP) or K^{+} , studied. In general, the tacrine derivs. were much more efficacious and potent in blocking DMPP-mediated 45Ca^{2+} uptake (and hence nAChRs), than K^{+} -evoked 45Ca^{2+} uptake (and hence voltage-dependent Ca^{2+} channels). The fact that these derivs. did not produce full blockade of DMPP-induced 45Ca^{2+} entry into the cells suggests that they behave as non-competitive inhibitors of nAChR. Possible structure-activity relationships are discussed.

IT 94556-80-6 187793-06-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(tacrine derivs. that block neuronal calcium channels)
RN 94556-80-6 CAPLUS
CN 3-Furancarbonitrile, 2-amino-4,5-bis(4-methoxyphenyl)- (CA INDEX NAME)



RN 187793-06-2 CAPLUS

CN 3-Furancarboxonitrile, 2-amino-4,5-bis(4-methylphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 13 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:338479 CAPLUS Full-text

DOCUMENT NUMBER: 134:353175

TITLE: Preparation of amides and ureas as activators of soluble guanylate cyclase

INVENTOR(S): Selwood, David; Glen, Robert; Reynolds, Karen; Wishart, Grant

PATENT ASSIGNEE(S): University College London, UK

SOURCE: PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

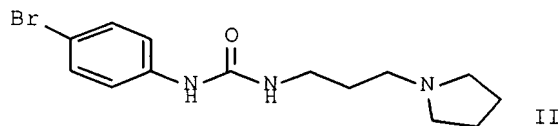
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|--------------|
| WO 2001032604 | A1 | 20010510 | WO 2000-GB4249 | 20001106 <-- |
| W: | | | | |
| AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: | | | | |
| GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2389773 | A1 | 20010510 | CA 2000-2389773 | 20001106 <-- |
| EP 1237849 | A1 | 20020911 | EP 2000-973061 | 20001106 <-- |
| R: | | | | |
| AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |

10/596419

JP 2003513064
PRIORITY APPLN. INFO.:

T 20030408
OTHER SOURCE(S):
GI MARPAT 134:353175

JP 2001-534758
GB 1999-26286
US 2000-201382P
WO 2000-GB4249
20001106 <--
A 19991105
P 20000502
W 20001106



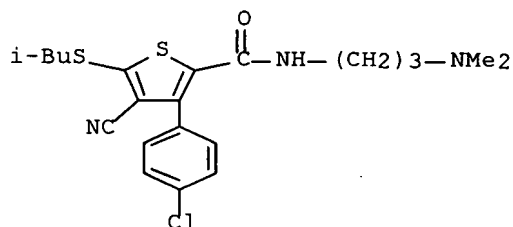
AB The title compds. R4PZNR1R2 [I; R1, R2 = alkyl; R1R2 together form alkylene; Z = alkylene; P = a direct bond, X, Y, W, XY, YW, XYW (wherein W = O, S, NR3; R3 = H, alkyl; Y = UV; V = a direct bond, alkylene; U = CS, CO, SO2, C(:NR); R = H, OH, alkyl; X = O, NR6; R6 = H, alkyl, alkenyl, etc.); R4 = alkyl, alkenyl, alkynyl, etc.], useful in the activation of soluble guanylate cyclase, were prepared E.g., synthesis of the urea II, starting with 4-bromoaniline and 1-(3-aminopropyl)pyrrolidine, was given. Biol. data for compds. I (e.g., IC50 for inhibition of platelet aggregation) were presented.

IT 338980-20-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amides and ureas as activators of soluble guanylate cyclase)

RN 338980-20-4 CAPLUS

CN 2-Thiophenecarboxamide, 3-(4-chlorophenyl)-4-cyano-N-[3-(dimethylamino)propyl]-5-[(2-methylpropyl)thio]- (CA INDEX NAME)

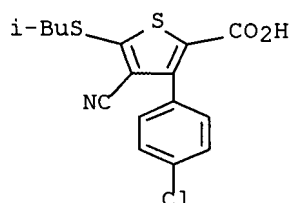


IT 338981-31-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of amides and ureas as activators of soluble guanylate cyclase)

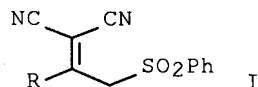
RN 338981-31-0 CAPLUS

CN 2-Thiophenecarboxylic acid, 3-(4-chlorophenyl)-4-cyano-5-[(2-methylpropyl)thio]- (CA INDEX NAME)

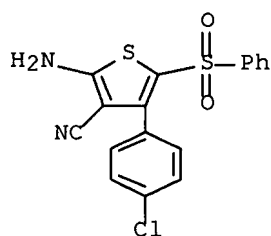


REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 14 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:135785 CAPLUS Full-text
 DOCUMENT NUMBER: 132:279089
 TITLE: A novel synthesis of sulfone systems as antimicrobial agents
 AUTHOR(S): Erian, Ayman W.; Issac, Yvette A.; Sherif, Sherif M.
 CORPORATE SOURCE: Department of Chemistry, Faculty of Science, Cairo University, Giza, Egypt
 SOURCE: Zeitschrift fuer Naturforschung, B: Chemical Sciences (2000), 55(1), 127-132
 CODEN: ZNBSEN; ISSN: 0932-0776
 PUBLISHER: Verlag der Zeitschrift fuer Naturforschung
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 132:279089
 GI



AB Phenylidicyanosulfonylpropenes I (R = Ph, 4-ClC6H4) were prepared to serve as building blocks in the synthesis of polyfunctionally substituted carbocyclic and heterocyclic sulfone systems. Chemical and spectroscopic evidence for the structures of the newly synthesized compds. are described. Some of the obtained compds. were tested for their antimicrobial activity.
 IT 263702-64-3P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (prepn of sulfones as antimicrobial agents)
 RN 263702-64-3 CAPLUS
 CN 3-Thiophenecarbonitrile, 2-amino-4-(4-chlorophenyl)-5-(phenylsulfonyl)-
 (CA INDEX NAME)

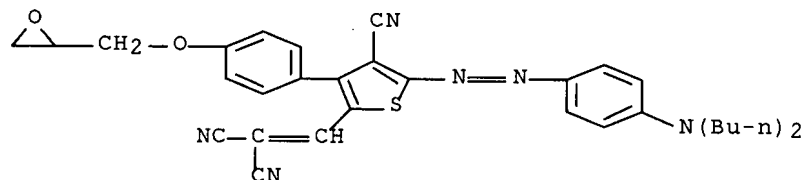


REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 15 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1998:217531 CAPLUS Full-text
 DOCUMENT NUMBER: 128:276861
 TITLE: Electrooptical and photonic devices
 INVENTOR(S): Nordmann, Jens; Beckmann, Stefan; Etzbach, Karl-Heinz;
 Sens, Ruediger; Bauer, Monika; Krueger, Hartmut;
 Bauer, Joerg; Guenzelmann, Cornelius; Hartmann, Horst;
 Walter, Andreas
 PATENT ASSIGNEE(S): Siemens A.-G., Germany; BASF A.-G.;
 Fraunhofer-Gesellschaft zur Foerderung der angewandten
 Forschung e.V.
 SOURCE: Ger. Offen., 20 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|------------------|--------------|
| DE 19639445 | A1 | 19980402 | DE 1996-19639445 | 19960925 <-- |
| PRIORITY APPLN. INFO.: | | | DE 1996-19639445 | 19960925 |
| AB Electrooptical and photonic devices comprising an active layer situated between two buffer layers and comprising an oriented, cross-linked nonlinear optical polymer are described in which the polymer is a polyadduct of a nonlinearly optically active copolymer which has ≥ 1 glycidyl or glycidyl ether groups which react with cyanate groups and ≥ 1 organic di- or polycyanate. Methods for fabricating the devices entailing sequential formation of the layers making them up are also described. | | | | |
| IT 205652-77-3P RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (electrooptical and photonic devices using polycyanurates) | | | | |
| RN 205652-77-3 CAPLUS | | | | |
| CN Cyanic acid, (1-methylethylidene)di-4,1-phenylene ester, polymer with [[4-cyano-5-[[4-(dibutylamino)phenyl]azo]-3-[4-(oxiranylmethoxy)phenyl]-2-thienyl]methylene]propanedinitrile (9CI) (CA INDEX NAME) | | | | |
| CM 1 | | | | |
| CRN 205652-75-1 | | | | |
| CMF C32 H32 N6 O2 S | | | | |

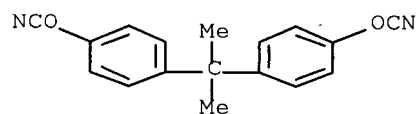
10/596419



CM 2

CRN 1156-51-0

CMF C17 H14 N2 O2



IT 205652-78-4P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); .USES (Uses)
(electrooptical and photonic devices using polycyanurates)

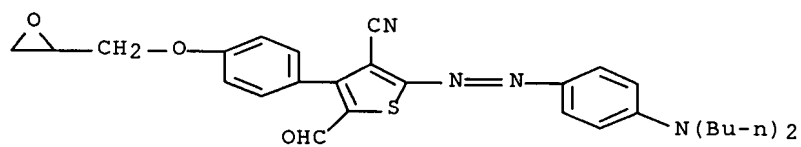
RN 205652-78-4 CAPLUS

CN Cyanic acid, (1-methylethylidene)di-4,1-phenylene ester, polymer with 2-[[4-(dibutylamino)phenyl]azo]-5-formyl-4-[4-(oxiranylmethoxy)phenyl]-3-thiophenecarbonitrile (9CI) (CA INDEX NAME)

CM 1

CRN 205652-74-0

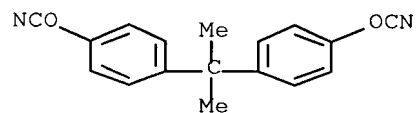
CMF C29 H32 N4 O3 S



CM 2

CRN 1156-51-0

CMF C17 H14 N2 O2

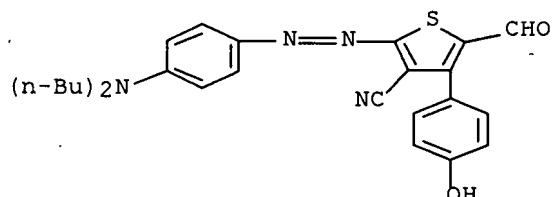


IT 173026-46-5P 173026-50-1P 173026-51-2P
205652-74-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(electrooptical and photonic devices using polycyanurates)

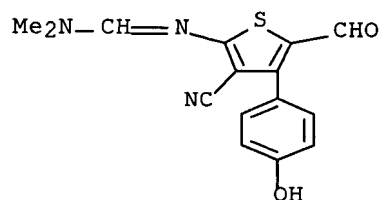
RN 173026-46-5 CAPLUS

CN 3-Thiophenecarbonitrile, 2-[[4-(dibutylamino)phenyl]azo]-5-formyl-4-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



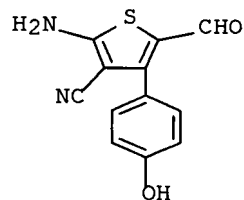
RN 173026-50-1 CAPLUS

CN Methanimidamide, N'-[3-cyano-5-formyl-4-(4-hydroxyphenyl)-2-thienyl]-N,N-dimethyl- (CA INDEX NAME)



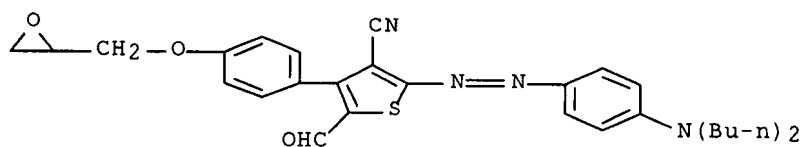
RN 173026-51-2 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-5-formyl-4-(4-hydroxyphenyl)- (CA INDEX NAME)



RN 205652-74-0 CAPLUS

CN 3-Thiophenecarbonitrile, 2-[[4-(dibutylamino)phenyl]azo]-5-formyl-4-[4-(oxiranylmethoxy)phenyl]- (9CI) (CA INDEX NAME)



L13 ANSWER 16 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:208611 CAPLUS Full-text

DOCUMENT NUMBER: 128:276858

TITLE: Electrooptical and photonic devices

INVENTOR(S): Nordmann, Jens; Beckmann, Stefan; Etzbach, Karl-Heinz;
Sens, Ruediger; Bauer, Monika; Krueger, Hartmut;
Bauer, Joerg; Guenzelmann, CorneliusPATENT ASSIGNEE(S): Siemens A.-G., Germany; BASF A.-G.;
Fraunhofer-Gesellschaft zur Foerderung der Angewandten
Forschung e.V.

SOURCE: Ger. Offen., 16 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|------------------|--------------|
| DE 19639447 | A1 | 19980326 | DE 1996-19639447 | 19960925 <-- |
| PRIORITY APPLN. INFO.: | | | DE 1996-19639447 | 19960925 |

AB Electrooptical and photonic devices comprising an active layer situated between two buffer layers and comprising an oriented, cross-linked nonlinear optical polymer are described in which the polymer is a polyadduct of a nonlinearly optically active copolymer which has cyanate groups and ≥ 1 organic di- or polycyanate. Methods for fabricating the devices entailing sequential formation of the layers making them up are also described.

IT 205507-01-3P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(electrooptical and photonic devices using polycyanurates)

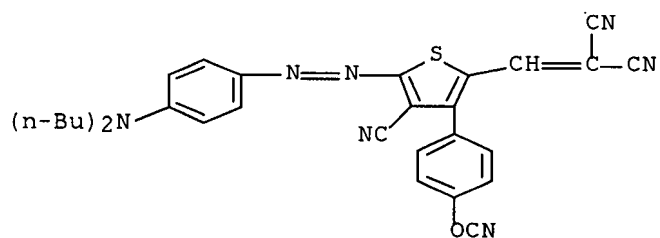
RN 205507-01-3 CAPLUS

CN Cyanic acid, (1-methylethylidene)di-4,1-phenylene ester, polymer with 4-[4-cyano-5-[[4-(dibutylamino)phenyl]azo]-2-(2,2-dicyanoethenyl)-3-thienyl]phenyl cyanate (9CI) (CA INDEX NAME)

CM 1

CRN 205507-00-2

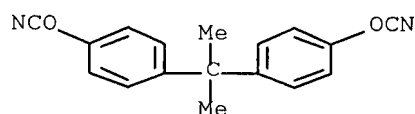
CMF C30 H27 N7 O S



CM 2

CRN 1156-51-0

CMF C17 H14 N2 O2



IT 173026-46-5P 173026-50-1P 173026-51-2P

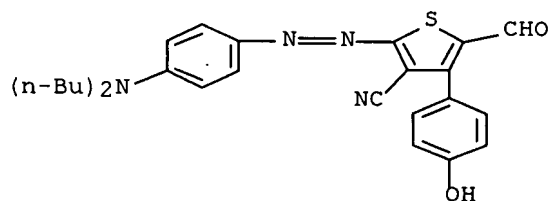
205506-99-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(electrooptical and photonic devices using polycyanurates)

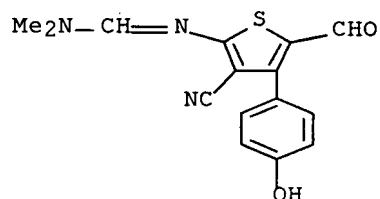
RN 173026-46-5 CAPLUS

CN 3-Thiophenecarbonitrile, 2-[[4-(dibutylamino)phenyl]azo]-5-formyl-4-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



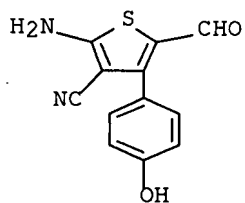
RN 173026-50-1 CAPLUS

CN Methanimidamide, N'-[3-cyano-5-formyl-4-(4-hydroxyphenyl)-2-thienyl]-N,N-dimethyl- (CA INDEX NAME)



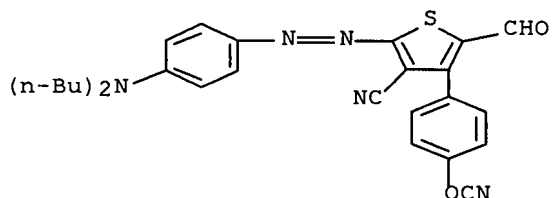
RN 173026-51-2 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-5-formyl-4-(4-hydroxyphenyl)- (CA INDEX NAME)



RN 205506-99-6 CAPLUS

CN Cyanic acid, 4-[4-cyano-5-[[4-(dibutylamino)phenyl]azo]-2-formyl-3-thienyl]phenyl ester (9CI) (CA INDEX NAME)



L13 ANSWER 17 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:208610 CAPLUS Full-text

DOCUMENT NUMBER: 128:276857

TITLE: Electrooptical and photonic devices

INVENTOR(S): Nordmann, Jens; Beckmann, Stefan; Etzbach, Karl-Heinz; Sens, Ruediger; Bauer, Monika; Krueger, Hartmut; Bauer, Joerg; Guenzelmann, Cornelius; Hartmann, Horst; Flaig, Ronald

PATENT ASSIGNEE(S): Siemens A.-G., Germany; BASF A.-G.; Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung e.V.

SOURCE: Ger. Offen., 22 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|------------------|--------------|
| DE 19639446 | A1 | 19980326 | DE 1996-19639446 | 19960925 <-- |
| PRIORITY APPLN. INFO.: | | | DE 1996-19639446 | 19960925 |

AB Electrooptical and photonic devices comprising an active layer situated between two buffer layers and comprising an oriented, cross-linked nonlinear optical polymer are described in which the polymer is a polyadduct of a nonlinearly optically active copolymer which has ≥ 1 hydroxy groups which react

with cyanate groups and ≥ 1 organic di- or polycyanate. Methods for fabricating the devices entailing sequential formation of the layers making them up are also described.

IT 205506-89-4P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(electrooptical and photonic devices using polycyanurates)

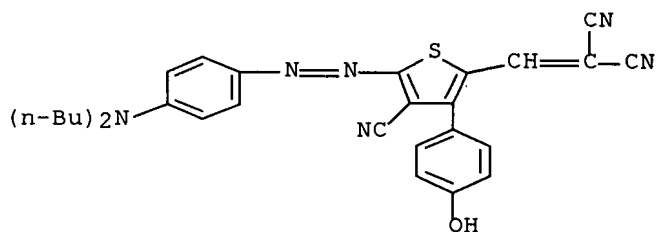
RN 205506-89-4 CAPLUS

CN Cyanic acid, (1-methylethylidene)di-4,1-phenylene ester, polymer with [[4-cyano-5-[[4-(dibutylamino)phenyl]azo]-3-(4-hydroxyphenyl)-2-thienyl]methylene]propanedinitrile (9CI) (CA INDEX NAME)

CM 1

CRN 205506-88-3

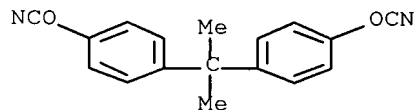
CMF C29 H28 N6 O S



CM 2

CRN 1156-51-0

CMF C17 H14 N2 O2



IT 205506-87-2P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(electrooptical and photonic devices using polycyanurates)

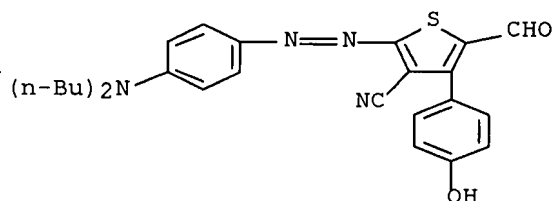
RN 205506-87-2 CAPLUS

CN Cyanic acid, (1-methylethylidene)di-4,1-phenylene ester, polymer with 2-[[4-(dibutylamino)phenyl]azo]-5-formyl-4-(4-hydroxyphenyl)-3-thiophenecarbonitrile (9CI) (CA INDEX NAME)

CM 1

CRN 173026-46-5

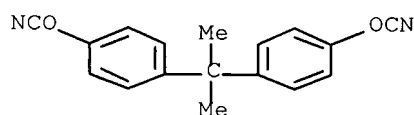
CMF C26 H28 N4 O2 S



CM 2

CRN 1156-51-0

CMF C17 H14 N2 O2



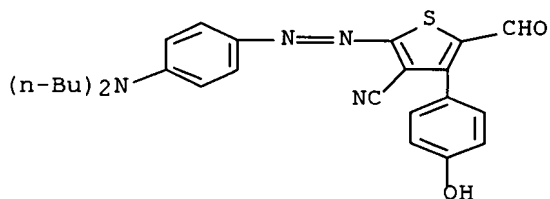
IT 173026-46-5P 173026-50-1P 173026-51-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(electrooptical and photonic devices using polycyanurates)

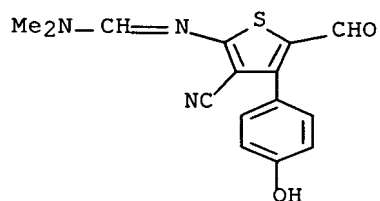
RN 173026-46-5 CAPLUS

CN 3-Thiophenecarbonitrile, 2-[[4-(dibutylamino)phenyl]azo]-5-formyl-4-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 173026-50-1 CAPLUS

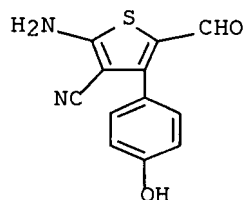
CN Methanimidamide, N'-[3-cyano-5-formyl-4-(4-hydroxyphenyl)-2-thienyl]-N,N-dimethyl- (CA INDEX NAME)



10/596419

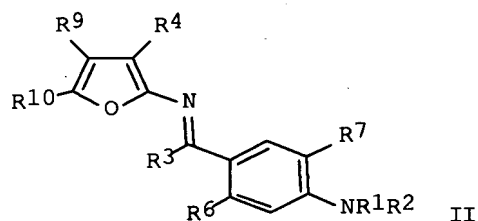
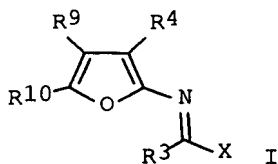
RN 173026-51-2 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-5-formyl-4-(4-hydroxyphenyl)- (CA INDEX NAME)

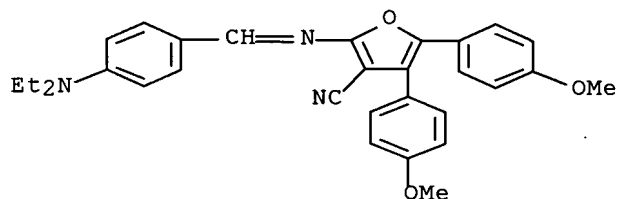


L13 ANSWER 18 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:761878 CAPLUS Full-text
 DOCUMENT NUMBER: 128:36078
 TITLE: Dye-donor element for use in thermal transfer printing
 INVENTOR(S): Vanmaele, Luc
 PATENT ASSIGNEE(S): Agfa-Gevaert N.V., Belg.
 SOURCE: Eur. Pat. Appl., 13 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

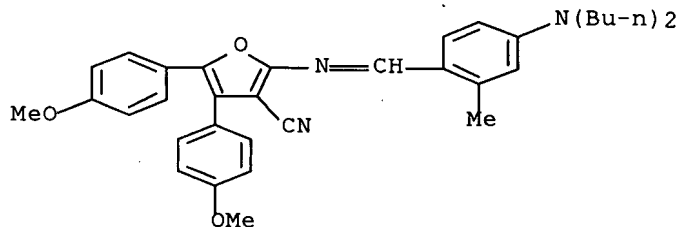
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|-----------|-----------------|--------------|
| EP 808721 | A1 | 19971126 | EP 1996-201374 | 19960521 <-- |
| R: DE, FR, GB | | | | |
| JP 10129131 | A | 19980519 | JP 1997-145837 | 19970520 <-- |
| PRIORITY APPLN. INFO.: | | | EP 1996-201374 | A 19960521 |
| OTHER SOURCE(S): | MARPAT | 128:36078 | | |
| GI | | | | |



- AB A dye-donor element comprises a support having thereon a dye layer comprising a polymeric binder and ≥ 1 dye having the formula I, wherein X represents an aromatic or hetero-aromatic ring system; R3 represents H, cyano, COR13, CO2R13, CONR14R15 or SO2R16, an alkyl group, an alkenyl group, an alkynyl group, an aromatic or heteroarom. ring; R4 represents H, CN, NO2, halogen, COR19, CO2R19, CONR20R21, SO2R22, POR23R24, an aryl group, an alkyl group, an alkenyl group, an alkynyl group; R9, R10 each independently represents H, an alkyl group, a heterocyclic ring, an alkenyl group, an alkynyl group, an aryl group or R9 and R10 or R9 and R4 together with the atoms to which they are attached represent the necessary atoms to form a ring, including a heterocyclic ring; R13, R14, R15 each independently represents H, an alkyl group, an alkenyl group, an alkynyl group, a heterocyclic ring or R14 and R15 together with the atoms to which they are attached represent the necessary atoms to form a 5- or 6- membered ring. R16 represents OH, an alkoxy group, a heterocyclic group, an aryloxy group, NR17R18, an aryl group or an alkyl group, an alkenyl group or an alkynyl group; R17, R18 each independently represents H, an alkyl group, an alkenyl group, an alkynyl group, an aryl group, a heterocyclic ring or R17 and R18 together with the atoms to which they are attached represent the necessary atoms to form a 5- or 6-membered ring; R19, R20, and R21 represent one of the meanings given to R13; R22 represents one of the meanings given to R16; R23, R24 each independently represents one of the meaning given to R16 or R23 and R24 together with the atoms to which they are attached represent the necessary atoms to form a ring system. Thus, a dye solution contained II (R1, R2 = Et, R9, R10 = p-MeOC6H4, R3, R6, R7= H, and R4 = CN), Luran 388S, and MEK.
- IT 199536-16-8 199536-17-9 199536-21-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dyes; thermal transfer printing inks contg dyes and binders)
- RN 199536-16-8 CAPLUS
- CN 3-Furancarbonitrile, 2-[[[4-(diethylamino)phenyl]methylene]amino]-4,5-bis(4-methoxyphenyl)- (CA INDEX NAME)



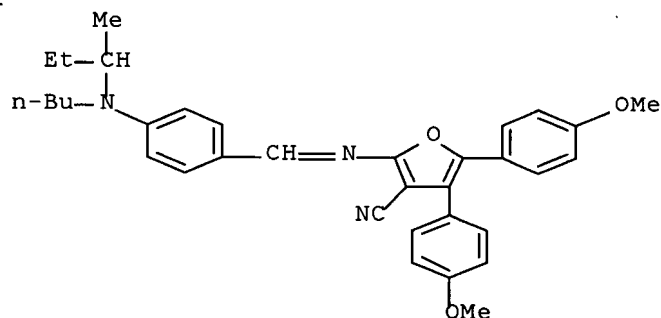
- RN 199536-17-9 CAPLUS
- CN 3-Furancarbonitrile, 2-[[[4-(dibutylamino)-2-methylphenyl]methylene]amino]-4,5-bis(4-methoxyphenyl)- (CA INDEX NAME)



10/596419

RN 199536-21-5 CAPLUS

CN 3-Furancarbonitrile, 2-[[[4-[butyl(1-methylpropyl)amino]phenyl]methylene]amino]-4,5-bis(4-methoxyphenyl)- (CA INDEX NAME)



L13 ANSWER 19 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:619483 CAPLUS Full-text

DOCUMENT NUMBER: 127:331458

TITLE: Syntheses with heterocyclic β -enamino nitriles.
An expeditious synthetic approach to polyfunctionally substituted 5-phenyl-sulfonylthiophenes and their fused derivatives

AUTHOR(S): Sherif, S. M.; Hussein, A. M.

CORPORATE SOURCE: Faculty Science, Cairo University, Giza, Egypt

SOURCE: Monatshefte fuer Chemie (1997), 128(6/7), 687-696

CODEN: MOCMB7; ISSN: 0026-9247

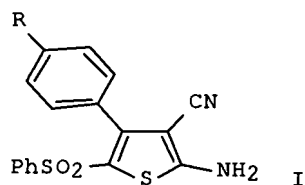
PUBLISHER: Springer

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 127:331458

GI



AB PhSO₂CH₂COC₆H₄-4-R (R = H, Br) reacts with a mixture of elemental S and CH₂(CN)₂ to yield the corresponding thiophenecarbonitriles I. Compound I (R = H) could be annelated to the corresponding thieno[2,3-d]pyrimidine and thieno[2,3-c]pyrazole (II) upon reaction with the N nucleophiles NH₂CN and NH₂OH.HCl, resp. The applicability and synthetic potency of II to develop a facile convenient route to polyfunctional thieno[2',3':3,4]pyrazolo[1,5-a]pyrimidines is reported.

IT 197861-64-6P

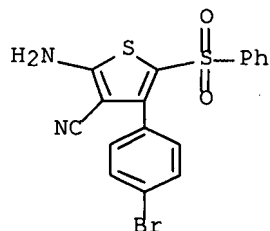
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of (phenylsulfonyl)thiophenes as heterocyclic enamino nitriles and their fused derivs.)

10/596419

RN 197861-64-6 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-4-(4-bromophenyl)-5-(phenylsulfonyl)-
(CA INDEX NAME)



L13 ANSWER 20 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:81521 CAPLUS Full-text

DOCUMENT NUMBER: 126:199544

TITLE: First synthesis of 4H-furo[3,2-f]pyrrolo[1,2-a][1,4]diazepines

AUTHOR(S): Feng, Xiao; Lancelot, Jean-Charles; Prunier, Herve;
Rault, Sylvain

CORPORATE SOURCE: Cent. Etudes Rech. Med. Normandie, U.F.R. Sci.
Pharmaceutiques-1, Caen, 14032, Fr.

SOURCE: Journal of Heterocyclic Chemistry (1996),
33(6), 2007-2011

CODEN: JHTCAD; ISSN: 0022-152X

PUBLISHER: HeteroCorporation

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The synthetic pathway leading to 4-H-furo[3,2-f]pyrrolo[1,2-a][1,4]diazepines
is described in five steps starting from 2-hydroxyketones via 2-amino-3-
furonitriles.

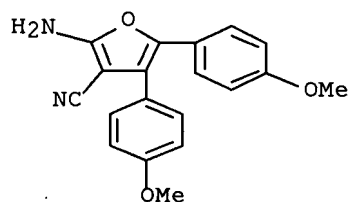
IT 94556-80-6P 187793-06-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(synthesis of 4H-furo[3,2-f]pyrrolo[1,2-a][1,4]diazepines)

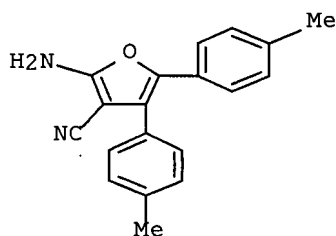
RN 94556-80-6 CAPLUS

CN 3-Furancarbonitrile, 2-amino-4,5-bis(4-methoxyphenyl)- (CA INDEX NAME)



RN 187793-06-2 CAPLUS

CN 3-Furancarbonitrile, 2-amino-4,5-bis(4-methylphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 21 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:996915 CAPLUS Full-text

DOCUMENT NUMBER: 124:117081

TITLE: Preparation of 2-(hydroxyphenyl)-5-aryldiazothiophenecarboxaldehydes and analogs as nonlinear optical materials and monomers

INVENTOR(S): Beckmann, Stefan; Etzbach, Karl-Heinz; Sens, Ruediger

PATENT ASSIGNEE(S): BASF A.-G., Germany

SOURCE: Ger. Offen., 12 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

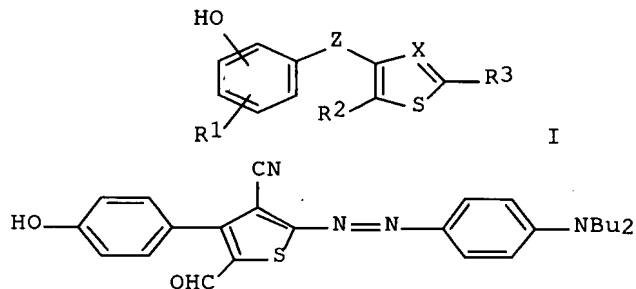
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

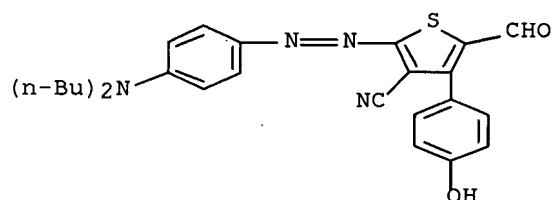
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|--------------|
| DE 4412983 | A1 | 19951019 | DE 1994-4412983 | 19940415 <-- |
| WO 9528396 | A1 | 19951026 | WO 1995-EP1290 | 19950407 <-- |
| W: JP, US | | | | |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| EP 755391 | A1 | 19970129 | EP 1995-914349 | 19950407 <-- |
| R: CH, DE, FR, GB, LI | | | | |
| JP 09511995 | T | 19971202 | JP 1995-526680 | 19950407 <-- |
| US 5777089 | A | 19980707 | US 1996-722141 | 19961015 <-- |
| PRIORITY APPLN. INFO.: | | | DE 1994-4412983 | A 19940415 |
| | | | WO 1995-EP1290 | W 19950407 |

OTHER SOURCE(S): MARPAT 124:117081

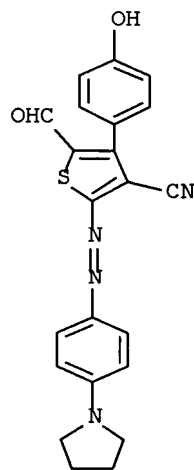
GI



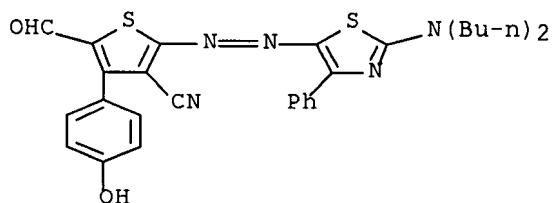
- AB Title compds. [I; R1,R2 = H, halo, alkyl, alkoxy, CHO, etc.; R3 = NH2, N:NZ1NR8R9, etc.; R8,R9 = H, (cyclo)alkyl; NR8R9 = heterocyclyl; X = N, CR4; R4 = H, cyano, CO2H, etc.; Z = bond, SO0-2, O, (alkyl)imino, etc.; Z1 = (un)substituted 1,4-phenylene] were prepared Thus, 4-(HO)C6H4COMe was condensed with CH2(CN)2 and the cyclized product converted in 3 steps to title compd II. Spectroscopic data for 3 prepared I were given.
- IT 173026-46-5P 173026-47-6P 173026-48-7P
 RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of 2-(hydroxyphenyl)-5-aryldiazothiophenecarboxaldehydes and analogs as nonlinear optical materials and monomers)
- RN 173026-46-5 CAPLUS
- CN 3-Thiophenecarbonitrile, 2-[[4-(dibutylamino)phenyl]azo]-5-formyl-4-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



- RN 173026-47-6 CAPLUS
- CN 3-Thiophenecarbonitrile, 5-formyl-4-(4-hydroxyphenyl)-2-[[4-(1-pyrrolidinyl)phenyl]azo]- (9CI) (CA INDEX NAME)



- RN 173026-48-7 CAPLUS
- CN 3-Thiophenecarbonitrile, 2-[[2-(dibutylamino)-4-phenyl-5-thiazolyl]azo]-5-formyl-4-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



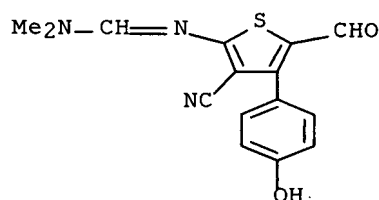
IT 173026-50-1P 173026-51-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 2-(hydroxyphenyl)-5-aryldiazothiophenecarboxaldehydes and analogs as nonlinear optical materials and monomers)

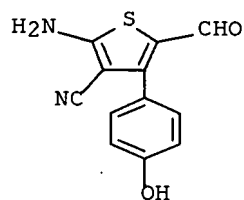
RN 173026-50-1 CAPLUS

CN Methanimidamide, N'-[3-cyano-5-formyl-4-(4-hydroxyphenyl)-2-thienyl]-N,N-dimethyl- (CA INDEX NAME)



RN 173026-51-2 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-5-formyl-4-(4-hydroxyphenyl)- (CA INDEX NAME)



L13 ANSWER 22 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:537697 CAPLUS Full-text

DOCUMENT NUMBER: 123:83235

TITLE: Synthesis of furo[2,3-d]pyrimidines and furo[2,3-b]pyridines

AUTHOR(S): Ali, M. M.; Zahran, M. A.; Ammar, Y. A.; Mohamed, Y. A.; Seleim, A. T.

CORPORATE SOURCE: Fac. Science, Al-Azhar Univ., Nasr, Egypt

SOURCE: Indian Journal of Heterocyclic Chemistry (1995), 4(3), 191-4

CODEN: IJCHEI; ISSN: 0971-1627

PUBLISHER: Lucknow University, Dep. of Chemistry

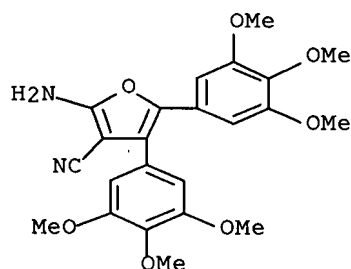
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Condensation of 2-amino-3-cyano-4,5-bis(3,4,5-trimethoxyphenyl)furan (I) with isothiocyanates, urea or thiourea, and carbon disulfide furnished furopyrimidine derivs., resp. Interaction of I or 2-amino-3-cyano-4,5-diphenylfuran (II) with formamide and Et acetoacetate afforded fuopyridine derivs., resp. 4-Aminofuopyrimidines have been converted into 4-imide, diacetyl, and benzamide derivs. Interaction of II with succinic anhydride gave the amide derivative, which cyclized to tetrahydrofuranone derivative

IT 165400-59-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of furo[2,3-d]pyrimidines, furo[2,3-b]pyridines, and related compds.)

RN 165400-59-9 CAPLUS

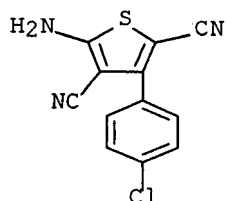
CN 3-Furancarbonitrile, 2-amino-4,5-bis(3,4,5-trimethoxyphenyl)- (CA INDEX NAME)



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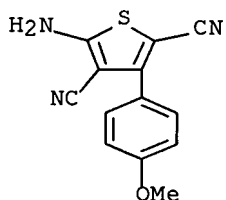
L13 ANSWER 23 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:106002 CAPLUS Full-text
DOCUMENT NUMBER: 116:106002
TITLE: Cyclization of 3-(alkylthio)-1,1,3-tricyano-1-propenes
to thiophenes
AUTHOR(S): Reux, D.; Pochat, F.
CORPORATE SOURCE: Lab. Synth. Org., Univ. Rennes I, Rennes, F-35042, Fr.
SOURCE: Sulfur Letters (1991), 13(5), 197-202
CODEN: SULED2; ISSN: 0278-6117
DOCUMENT TYPE: Journal
LANGUAGE: French
OTHER SOURCE(S): CASREACT 116:106002
AB While 1,1,3-tricyanopropenes undergo cyclization to pyridines in acidic
medium, the cyclization of 3-alkylthio-1,1,3-tricyanopropenes leads
exclusively to thiophenes.
IT 139260-20-1P 139260-21-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 139260-20-1 CAPLUS
CN 2,4-Thiophenedicarbonitrile, 5-amino-3-(4-chlorophenyl)- (9CI) (CA INDEX
NAME)

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RN 139260-21-2 CAPLUS

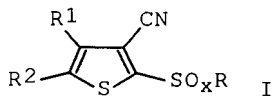
CN 2,4-Thiophenedicarbonitrile, 5-amino-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



L13 ANSWER 24 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1988:528820 CAPLUS Full-text
 DOCUMENT NUMBER: 109:128820
 TITLE: Preparation of 3-cyano-4-arylthiophenes as herbicides
 INVENTOR(S): Abdulla, Riaz Fazal; Morris, Kenneth William;
 Williams, James Curtis, Jr.
 PATENT ASSIGNEE(S): Eli Lilly and Co., USA
 SOURCE: Eur. Pat. Appl., 42 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|-------------------|----------|-----------------|--------------|
| EP 273602 | A1 | 19880706 | EP 1987-310603 | 19871202 <-- |
| R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| JP 63159380 | A | 19880702 | JP 1987-310798 | 19871205 <-- |
| PRIORITY APPLN. INFO.: | | | US 1986-938220 | A 19861205 |
| OTHER SOURCE(S): | MARPAT 109:128820 | | | |

GI



AB The title compds. [I; R = C1-3 alkyl; R1 = (un)substituted Ph; R2 = H, Cl; x = 0-2] were prepared HSCH2CO2Me and 4-ClC6H4COC(CN):C(MeS)2 were heated in EtOH

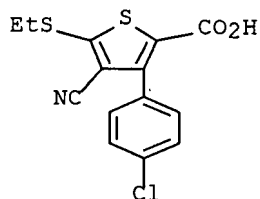
in the presence of Et₃N to give Me 4-(4-chlorophenyl)-3-cyano-2- (methylthio)-5-thiophencarboxylate. The latter was saponified to give the carboxylic acid which was treated with quinoline and Cu bronze to give I (R = Me, R₁ = 4-ClC₆H₄, R₂ = H, x = 0) (II). In tomatoes, 15 lb II/acre gave 100% preemergence control of crabgrass and redroot pigweed.

IT 116492-91-2P 116492-95-6P 116493-03-9P
116493-06-2P 116493-07-3P 116525-65-6P
116525-66-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and decarboxylation of)

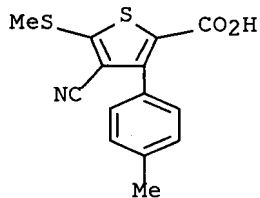
RN 116492-91-2 CAPLUS

CN 2-Thiophenecarboxylic acid, 3-(4-chlorophenyl)-4-cyano-5-(ethylthio)-
(9CI) (CA INDEX NAME)



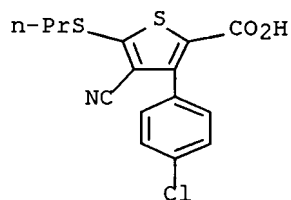
RN 116492-95-6 CAPLUS

CN 2-Thiophenecarboxylic acid, 4-cyano-3-(4-methylphenyl)-5-(methylthio)-
(9CI) (CA INDEX NAME)



RN 116493-03-9 CAPLUS

CN 2-Thiophenecarboxylic acid, 3-(4-chlorophenyl)-4-cyano-5-(propylthio)-
(9CI) (CA INDEX NAME)

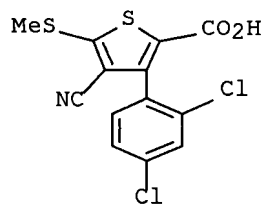


RN 116493-06-2 CAPLUS

CN 2-Thiophenecarboxylic acid, 4-cyano-3-(2,4-dichlorophenyl)-5-(methylthio)-

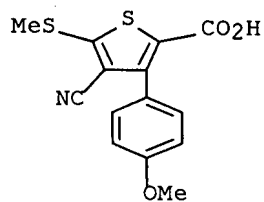
10/596419

(9CI) (CA INDEX NAME)



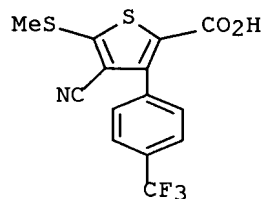
RN 116493-07-3 CAPLUS

CN 2-Thiophenecarboxylic acid, 4-cyano-3-(4-methoxyphenyl)-5-(methylthio)-
(9CI) (CA INDEX NAME)



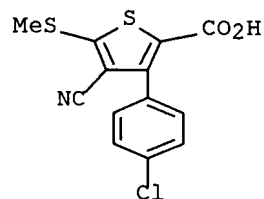
RN 116525-65-6 CAPLUS

CN 2-Thiophenecarboxylic acid, 4-cyano-5-(methylthio)-3-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



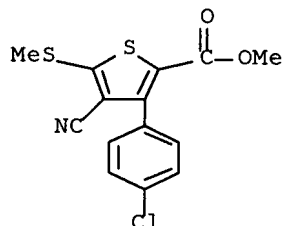
RN 116525-66-7 CAPLUS

CN 2-Thiophenecarboxylic acid, 3-(4-chlorophenyl)-4-cyano-5-(methylthio)-
(CA INDEX NAME)

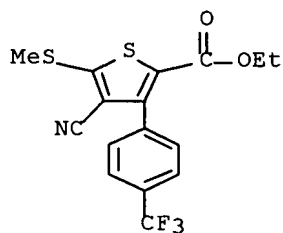


10/596419

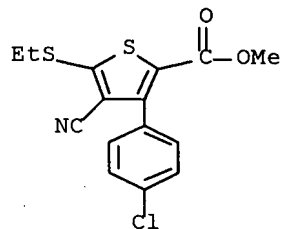
IT 63244-05-3P 116492-89-8P 116492-90-1P
116492-94-5P 116493-02-8P 116493-05-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and saponification of)
RN 63244-05-3 CAPLUS
CN 2-Thiophenecarboxylic acid, 3-(4-chlorophenyl)-4-cyano-5-(methylthio)-,
methyl ester (9CI) (CA INDEX NAME)



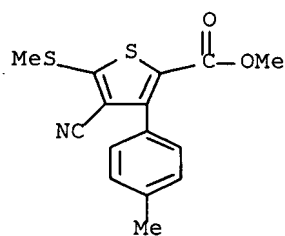
RN 116492-89-8 CAPLUS
CN 2-Thiophenecarboxylic acid, 4-cyano-5-(methylthio)-3-[4-(trifluoromethyl)phenyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 116492-90-1 CAPLUS
CN 2-Thiophenecarboxylic acid, 3-(4-chlorophenyl)-4-cyano-5-(ethylthio)-,
methyl ester (9CI) (CA INDEX NAME)

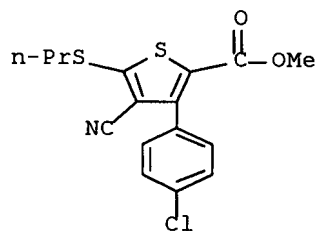


RN 116492-94-5 CAPLUS
CN 2-Thiophenecarboxylic acid, 4-cyano-3-(4-methylphenyl)-5-(methylthio)-,
methyl ester (9CI) (CA INDEX NAME)



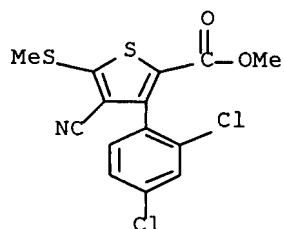
RN 116493-02-8 CAPLUS

CN 2-Thiophenecarboxylic acid, 3-(4-chlorophenyl)-4-cyano-5-(propylthio)-, methyl ester (9CI) (CA INDEX NAME)



RN 116493-05-1 CAPLUS

CN 2-Thiophenecarboxylic acid, 4-cyano-3-(2,4-dichlorophenyl)-5-(methylthio)-, methyl ester (9CI) (CA INDEX NAME)

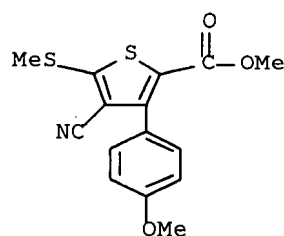


IT 63244-07-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(saponification of)

RN 63244-07-5 CAPLUS

CN 2-Thiophenecarboxylic acid, 4-cyano-3-(4-methoxyphenyl)-5-(methylthio)-, methyl ester (9CI) (CA INDEX NAME)



L13 ANSWER 25 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1988:510245 CAPLUS Full-text
 DOCUMENT NUMBER: 109:110245
 TITLE: Preparation of thio compounds having fungicidal activity
 INVENTOR(S): Dolman, H.; Kuipers, J.
 PATENT ASSIGNEE(S): Duphar International Research B. V., Neth.
 SOURCE: Eur. Pat. Appl., 36 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|----------|-----------------|--------------|
| EP 234622 | A1 | 19870902 | EP 1987-200143 | 19870202 <-- |
| EP 234622 | B1 | 19900627 | | |
| R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE | | | | |
| AT 54143 | T | 19900715 | AT 1987-200143 | 19870202 <-- |
| DK 8700765 | A | 19870820 | DK 1987-765 | 19870216 <-- |
| ZA 8701109 | A | 19871028 | ZA 1987-1109 | 19870216 <-- |
| BR 8700705 | A | 19871215 | BR 1987-705 | 19870216 <-- |
| CN 87101917 | A | 19880106 | CN 1987-101917 | 19870216 <-- |
| CN 1017243 | B | 19920701 | | |
| HU 45483 | A2 | 19880728 | HU 1987-597 | 19870216 <-- |
| HU 204399 | B | 19920128 | | |
| SU 1496633 | A3 | 19890723 | SU 1987-4028996 | 19870216 <-- |
| PL 154573 | B1 | 19910830 | PL 1987-264141 | 19870216 <-- |
| IL 81590 | A | 19911121 | IL 1987-81590 | 19870216 <-- |
| AU 8768856 | A | 19870820 | AU 1987-68856 | 19870217 <-- |
| AU 594119 | B2 | 19900301 | | |
| CS 268823 | B2 | 19900411 | CS 1987-1037 | 19870217 <-- |
| DD 265315 | A5 | 19890301 | DD 1987-300016 | 19870218 <-- |
| JP 62192353 | A | 19870822 | JP 1987-36857 | 19870219 <-- |
| US 4994485 | A | 19910219 | US 1990-566868 | 19900814 <-- |
| PRIORITY APPLN. INFO.: | | | | |
| | | | NL 1986-416 | A 19860219 |
| | | | NL 1986-1296 | A 19860522 |
| | | | EP 1987-200143 | A 19870202 |
| | | | US 1987-14596 | B1 19870213 |
| | | | US 1988-175601 | B1 19880329 |
| | | | US 1989-395220 | B1 19890817 |
| AB | Title compds. ZCR1:CR2CX:C[S(O)nR]Y [I; R = (un)substituted C1-12 alkyl, C2-4 alkenyl or alkynyl, C3-4 alkadienyl, (un)substituted Ph or phenyl-C1-4-alkyl; R1 = cyano, CHO, C2-5 alkylcarbonyl or alkoxy carbonyl (un)substituted by halo, (un)substituted Bz, C1-4 alkylsulfonyl; R2 = H, halo, NH2 (un)substituted by C1-4 alkyl or C2-5 alkylcarbonyl, heterocyclic amino optionally comprising 1-2 | | | |

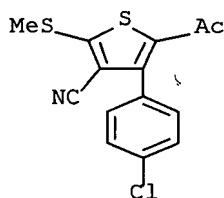
addnl. N, O, or S atoms, C1-4 alkyl or alkoxy (un)substituted by halo or C2-5 alkylcarbonyl, (un)substituted (hetero)aryl, (hetero)aryloxy, or (hetero)arylthio; R1R2 = (un)substituted CH:CHCH:CH; X = cyano, CHO; Y = C1-4 alkylthio; Z = H, halo, NO2, C1-4 alkyl or alkoxy (un)substituted by halo; YZ = S; n = 1, 2] are prepared as agrochem. fungicides and bactericides. m-ClC6H4C(O)OOH was gradually added at 0-5° to 2-(methylthio)-3-cyano-5-acetylthiophene to give 2-(methylsulfinyl)-3-cyano-5-acetylthiophene. Wheat seed infested with Fusarium culmorum and treated with 2-(ethylsulfinyl)-3,5-dicyano-4-chlorothiophene (also prepared) at 3 g/kg seed resulted in 98% emerged healthy plants, compared to 68-75% with known substances.

IT 63244-11-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of)

RN 63244-11-1 CAPLUS

CN 3-Thiophenecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-2-(methylthio)- (9CI)
(CA INDEX NAME)

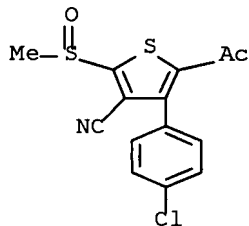


IT 116170-29-7P 116170-49-1P 116170-58-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as agrochem. bactericide and fungicide)

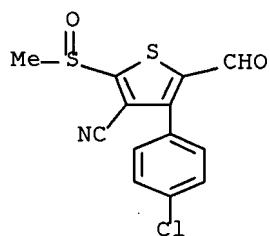
RN 116170-29-7 CAPLUS

CN 3-Thiophenecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-2-(methylsulfinyl)-
(9CI) (CA INDEX NAME)

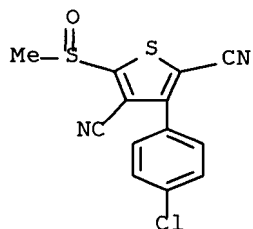


RN 116170-49-1 CAPLUS

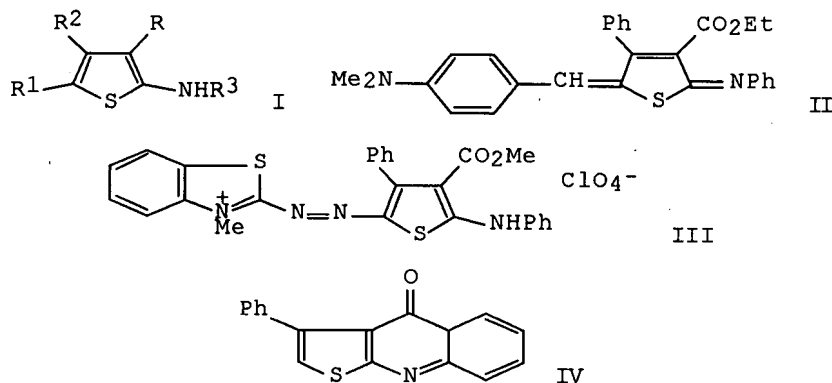
CN 3-Thiophenecarbonitrile, 4-(4-chlorophenyl)-5-formyl-2-(methylsulfinyl)-
(9CI) (CA INDEX NAME)



RN 116170-58-2 CAPLUS

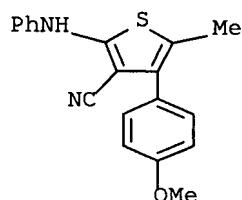
CN 2,4-Thiophenedicarbonitrile, 3-(4-chlorophenyl)-5-(methylsulfinyl)- (9CI)
(CA INDEX NAME)

L13 ANSWER 26 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1986:109396 CAPLUS Full-text
 DOCUMENT NUMBER: 104:109396
 TITLE: 2-(Arylamino)thiophene-3-carboxylic acid derivatives
 AUTHOR(S): Schaefer, H.; Jablokoff, H.; Hentschel, M.; Gewald, K.
 CORPORATE SOURCE: Sek. Chem., Tech. Univ. Dresden, Dresden, DDR-8027,
 Ger. Dem. Rep.
 SOURCE: Journal fuer Praktische Chemie (Leipzig) (1984
), 326(6), 917-23
 CODEN: JPCEAO; ISSN: 0021-8383
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 OTHER SOURCE(S): CASREACT 104:109396
 GI

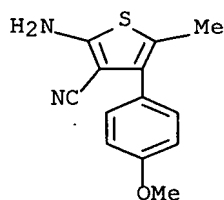


AB Thirteen title compds. I (R = CO₂Me, cyano; R₁ = H, Me, Et; R₂ = Ph, p-MeC₆H₄, p-MeOC₆H₄, Me, H; R₃ = Ph, p-MeC₆H₄, p-MeOC₆H₄, m-MeC₆H₄) were prepared by treating I (R₃ = H) with anilines. The reactions of I (R₃ = aryl) were investigated. Thus, I (R = CO₂Et, R₁ = H, R₂ = R₃ = Ph) was condensed with p-(Me₂N)C₆H₄CHO to give imine II and underwent oxidative coupling with N-methylbenzothiazol-2-one hydrazone to give the azo compound III. I (R = CO₂Et, R₁ = H, R₂ = R₃ = Ph) was cyclized by polyphosphoric acid to give the thienoquinoline IV.

IT 100005-21-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 100005-21-8 CAPLUS
 CN 3-Thiophenecarbonitrile, 4-(4-methoxyphenyl)-5-methyl-2-(phenylamino)-
 (9CI) (CA INDEX NAME)



IT 100005-23-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with aniline)
 RN 100005-23-0 CAPLUS
 CN 3-Thiophenecarbonitrile, 2-amino-4-(4-methoxyphenyl)-5-methyl- (9CI) (CA
 INDEX NAME)



L13 ANSWER 27 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1985:78651 CAPLUS Full-text
 DOCUMENT NUMBER: 102:78651
 TITLE: Ring transformations and reaction of
 2-amino-4,5-dihydrofuran-3,4-dicarbonitriles
 AUTHOR(S): Aran, Vicente J.; Perez, Miguel A.; Soto, Jose L.
 CORPORATE SOURCE: Dep. Quim. Org., Univ. Complutense, Madrid, Spain
 SOURCE: Journal of the Chemical Society, Perkin Transactions
 1: Organic and Bio-Organic Chemistry (1972-1999) (1984), (9), 2009-11
 CODEN: JCPRB4; ISSN: 0300-922X
 DOCUMENT TYPE: Journal

10/596419

LANGUAGE: English
OTHER SOURCE(S): CASREACT 102:78651
GI

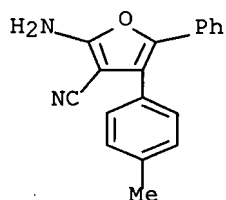
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Thermal aromatization of dihydrofurans I (R = H, OMe, R1 = H, OMe; R = Me, Cl, R1 = H) in refluxing ethylene glycol for 15 min gave the corresponding furans II in 55-70% yield. Photooxidative rearrangement of II in MeCN for 3 days gave 65-80% pyrroles III (R = H, OMe, R1 = OMe; R = OMe, Me, R1 = H). Mild acid hydrolysis of I gave the corresponding lactones IV. Refluxing of IV (R = R1 = H) (V) in ethylene glycol for 30 min gave 55% 2,5-dihydro-2-oxo-4,5-diphenylfuran-3-carbonitrile. Europyrroletrione VI was obtained in 59% yield by reaction of V in refluxing AcOH-H2O-H2SO4 for 3 h.

IT 14774-55-1P 14774-62-0P 94556-80-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and rearrangement of, pyrrolone by)

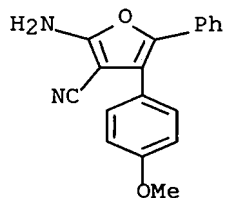
RN 14774-55-1 CAPLUS

CN 3-Furancarbonitrile, 2-amino-4-(4-methylphenyl)-5-phenyl- (9CI) (CA INDEX NAME)



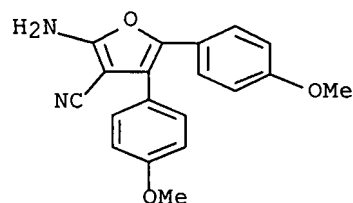
RN 14774-62-0 CAPLUS

CN 3-Furancarbonitrile, 2-amino-4-(4-methoxyphenyl)-5-phenyl- (CA INDEX NAME)



RN 94556-80-6 CAPLUS

CN 3-Furancarbonitrile, 2-amino-4,5-bis(4-methoxyphenyl)- (CA INDEX NAME)



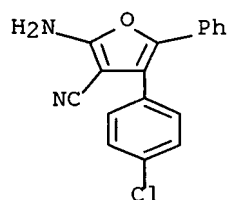
IT 14774-60-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, by aromatization of aminodihydrofurandicarbonitrile)

RN 14774-60-8 CAPLUS

CN 3-Furancarbonitrile, 2-amino-4-(4-chlorophenyl)-5-phenyl- (9CI) (CA INDEX NAME)



L13 ANSWER 28 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1979:71982 CAPLUS Full-text

DOCUMENT NUMBER: 90:71982

TITLE: Basic rearrangement of 2-methylidyne
thiazolidin-4-one. Part 2. Reactivity and biological
activity in the thiazole series

AUTHOR(S): Dehne, H.; Krey, P.

CORPORATE SOURCE: Sek. Biol./Chem., Paedagog. Hochsch. "Liselotte
Herrmann", Guestrow, Ger. Dem. Rep.

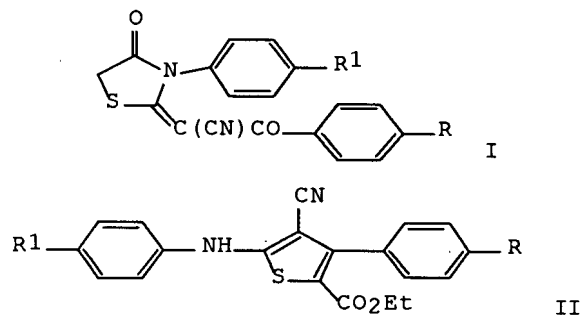
SOURCE: Pharmazie (1978), 33(10), 687-8

CODEN: PHARAT; ISSN: 0031-7144

DOCUMENT TYPE: Journal

LANGUAGE: German

GI



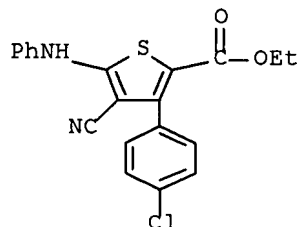
AB The thiazolidinones I (R = Cl; R1 = H, Cl, Me) reacted with NaOEt in EtOH to give ring opening, followed by cyclization to II.

IT 69148-49-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 69148-49-8 CAPLUS

CN 2-Thiophenecarboxylic acid, 3-(4-chlorophenyl)-4-cyano-5-(phenylamino)-, ethyl ester (9CI) (CA INDEX NAME)



L13 ANSWER 29 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1978:74292 CAPLUS Full-text

DOCUMENT NUMBER: 88:74292

TITLE: Substituted 2-aminothiophenes

INVENTOR(S): Augustin, Manfred; Dehne, Heinz; Rudorf, Wolf Dieter; Krey, Peter

PATENT ASSIGNEE(S): Ger. Dem. Rep.

SOURCE: Ger. (East), 10 pp.
CODEN: GEXXA8

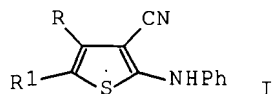
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------------|------|----------|-----------------|--------------|
| DD 124302 | A1 | 19770216 | DD 1976-191493 | 19760226 <-- |
| PRIORITY APPLN. INFO.: GI | | | DD 1976-191493 | A1 19760226 |



AB Approx. 20 title compds. I (R = Ph, 2-thienyl, 2-furyl, PhCH:CH, p-BrC6H4, p-ClC6H4, p-tolyl, p-anisyl; R1 = Ac, Bz, p-BrC6H4CO, p-MeC6H4CO, p-O2NC6H4CO, NO2) were prepared from RCOCH2CN, NaH, PhNCS, and R1CH2X (X = halide) or from RCO(NC)C:C(NHPh)SH, R1CH2X, and NaOEt. Thus, 0.05 mol BzCH2CN, 0.05 mol NaH, and 0.05 mol PhNCS in DMF were treated with 0.05 mol AcCH2Br to give 75% I (R = Ph, R1 = Ac). Also, 0.02 mol Bz(NC)C:C(NHPh)SH and 0.02 mol BzCH2Br gave 65% I (R = Ph, R1 = Bz).

IT 65514-55-8P 65514-61-6P 65514-62-7P

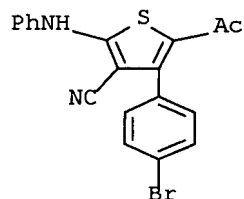
10/596419

65514-63-8P 65514-64-9P 65542-67-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

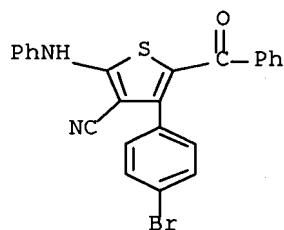
RN 65514-55-8 CAPLUS

CN 3-Thiophenecarbonitrile, 5-acetyl-4-(4-bromophenyl)-2-(phenylamino)- (9CI)
(CA INDEX NAME)



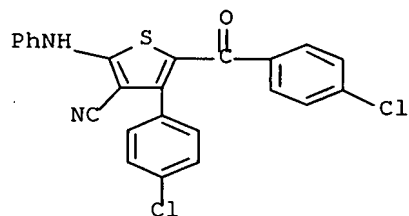
RN 65514-61-6 CAPLUS

CN 3-Thiophenecarbonitrile, 5-benzoyl-4-(4-bromophenyl)-2-(phenylamino)-
(9CI) (CA INDEX NAME)



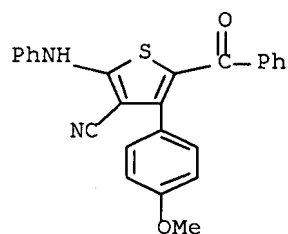
RN 65514-62-7 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(4-chlorobenzoyl)-4-(4-chlorophenyl)-2-(phenylamino)- (9CI) (CA INDEX NAME)



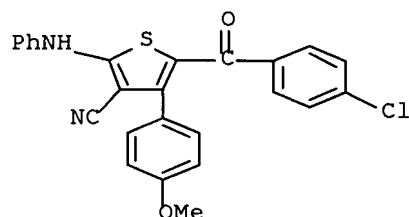
RN 65514-63-8 CAPLUS

CN 3-Thiophenecarbonitrile, 5-benzoyl-4-(4-methoxyphenyl)-2-(phenylamino)-
(9CI) (CA INDEX NAME)



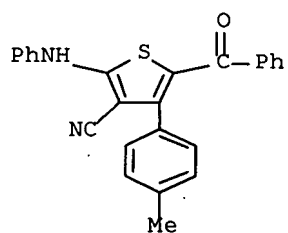
RN 65514-64-9 CAPLUS

CN 3-Thiophenecarbonitrile, 5-(4-chlorobenzoyl)-4-(4-methoxyphenyl)-2-(phenylamino)- (9CI) (CA INDEX NAME)



RN 65542-67-8 CAPLUS

CN 3-Thiophenecarbonitrile, 5-benzoyl-4-(4-methylphenyl)-2-(phenylamino)- (9CI) (CA INDEX NAME)



L13 ANSWER 30 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:422912 CAPLUS Full-text

DOCUMENT NUMBER: 87:22912

TITLE: Thiophenes through S-alkylation

AUTHOR(S): Augustin, M.; Rudolf, W. D.; Schmidt, U.

CORPORATE SOURCE: Sek. Chem., Martin-Luether-Univ., Halle, Ger. Dem. Rep.

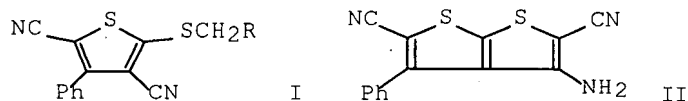
SOURCE: Tetrahedron (1976), 32(24), 3055-61

CODEN: TETRAB; ISSN: 0040-4020

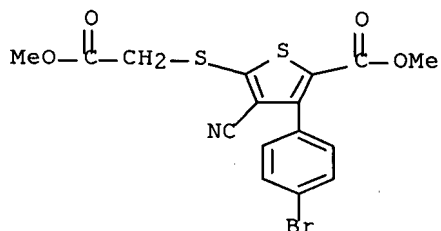
DOCUMENT TYPE: Journal

LANGUAGE: German

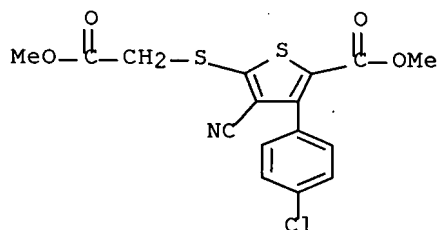
GI



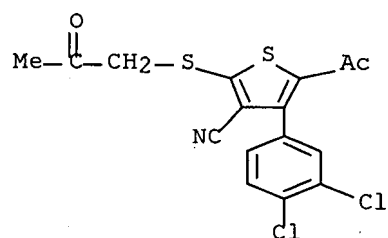
- AB 3-(Methylthio)-3-(substituted methylthio)-2-arylacrylonitriles, prepared from aroylacetonitriles by sequential treatment with CS₂/NaH and MeI/active methylene compound, cyclized in the presence of base to give 2-methylthio-3-cyano-4-arylthiophenes. E.g., PhCOCH₂CN with CS₂/NaH and MeI/ClCH₂CN gave 65.5% PhCOC(CN):C(SMe)SCH₂CN which with NaOMe gave 45% I (R = H). 2-(Substituted methylthio) analogs of I, prepared similarly by omission of MeI, cyclized to thieno[2,3-b]thiophenes. E.g., I (R = CN) gave 20% II. 2-Anilinothiophenes were prepared similarly by using PhNCS in place of CS₂.
- IT 63243-92-5P 63243-93-6P 63243-94-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and ring closure of)
- RN 63243-92-5 CAPLUS
- CN 2-Thiophenecarboxylic acid, 3-(4-bromophenyl)-4-cyano-5-[(2-methoxy-2-oxoethyl)thio]-, methyl ester (9CI) (CA INDEX NAME)



- RN 63243-93-6 CAPLUS
- CN 2-Thiophenecarboxylic acid, 3-(4-chlorophenyl)-4-cyano-5-[(2-methoxy-2-oxoethyl)thio]-, methyl ester (9CI) (CA INDEX NAME)



- RN 63243-94-7 CAPLUS
- CN 3-Thiophenecarbonitrile, 5-acetyl-4-(3,4-dichlorophenyl)-2-[(2-oxopropyl)thio]- (9CI) (CA INDEX NAME)

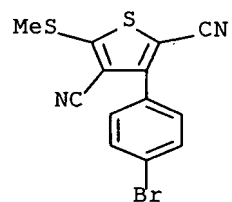


IT 63243-97-0P 63243-98-1P 63243-99-2P
 63244-00-8P 63244-04-2P 63244-05-3P
 63244-06-4P 63244-07-5P 63244-10-0P
 63244-11-1P 63244-12-2P 63244-13-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

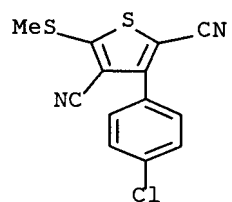
RN 63243-97-0 CAPLUS

CN 2,4-Thiophenedicarbonitrile, 3-(4-bromophenyl)-5-(methylthio)- (9CI) (CA
 INDEX NAME)



RN 63243-98-1 CAPLUS

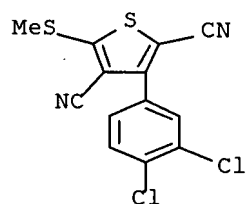
CN 2,4-Thiophenedicarbonitrile, 3-(4-chlorophenyl)-5-(methylthio)- (9CI) (CA
 INDEX NAME)



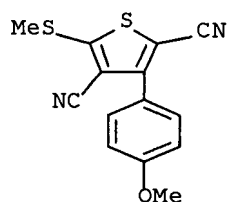
RN 63243-99-2 CAPLUS

CN 2,4-Thiophenedicarbonitrile, 3-(3,4-dichlorophenyl)-5-(methylthio)- (9CI)
 (CA INDEX NAME)

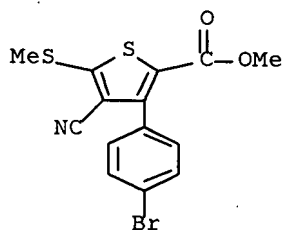
10/596419



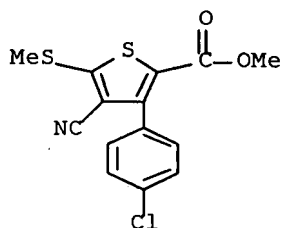
RN 63244-00-8 CAPLUS
CN 2,4-Thiophenedicarbonitrile, 3-(4-methoxyphenyl)-5-(methylthio)- (9CI)
(CA INDEX NAME)



RN 63244-04-2 CAPLUS
CN 2-Thiophenecarboxylic acid, 3-(4-bromophenyl)-4-cyano-5-(methylthio)-,
methyl ester (9CI) (CA INDEX NAME)



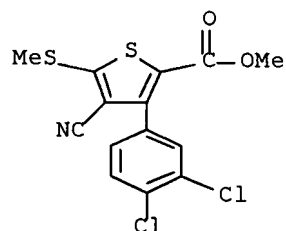
RN 63244-05-3 CAPLUS
CN 2-Thiophenecarboxylic acid, 3-(4-chlorophenyl)-4-cyano-5-(methylthio)-,
methyl ester (9CI) (CA INDEX NAME)



RN 63244-06-4 CAPLUS

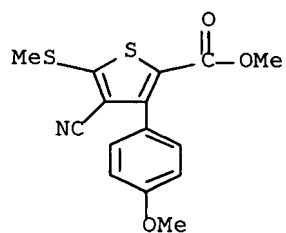
10/596419

CN 2-Thiophenecarboxylic acid, 4-cyano-3-(3,4-dichlorophenyl)-5-(methylthio)-
methyl ester (9CI) (CA INDEX NAME)



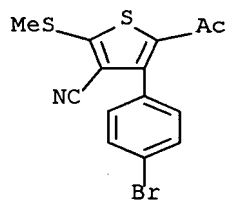
RN 63244-07-5 CAPLUS

CN 2-Thiophenecarboxylic acid, 4-cyano-3-(4-methoxyphenyl)-5-(methylthio)-,
methyl ester (9CI) (CA INDEX NAME)



RN 63244-10-0 CAPLUS

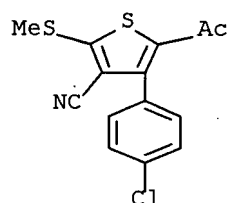
CN 3-Thiophenecarbonitrile, 5-acetyl-4-(4-bromophenyl)-2-(methylthio)- (9CI)
(CA INDEX NAME)



RN 63244-11-1 CAPLUS

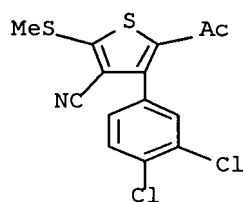
CN 3-Thiophenecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-2-(methylthio)- (9CI)
(CA INDEX NAME)

10/596419



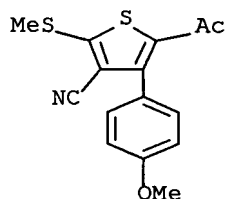
RN 63244-12-2 CAPLUS

CN 3-Thiophenecarbonitrile, 5-acetyl-4-(3,4-dichlorophenyl)-2-(methylthio)-
(9CI) (CA INDEX NAME)



RN 63244-13-3 CAPLUS

CN 3-Thiophenecarbonitrile, 5-acetyl-4-(4-methoxyphenyl)-2-(methylthio)-
(9CI) (CA INDEX NAME)



L13 ANSWER 31 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1973:449081 CAPLUS Full-text

DOCUMENT NUMBER: 79:49081

ORIGINAL REFERENCE NO.: 79:7889a,7892a

TITLE: 2,4-Diaminothieno[2,3-d]pyrimidines as antifolates and antimalarials. 3. Synthesis of 5,6-disubstituted derivatives and related tetracyclic analogs

AUTHOR(S): Rosowsky, A.; Chen, K. K. N.; Lin, M.

CORPORATE SOURCE: Child. Cancer Res. Found., Harvard Med. Sch., Boston, MA, USA

SOURCE: Journal of Medicinal Chemistry (1973), 16(3), 191-4

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Of a number of 5- and (or) 6-alkyl-, -aralkyl-, and -aryl-2,4-diaminothienopyrimidines synthesized, only 2,4-diamino-5-methyl-6-

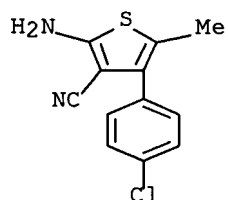
benzylthieno[2,3-d]pyrimidine (I) [18620-94-5] was active against Plasmodium berghei in mice (at 640 mg/kg s.c.). None of the compds. was active against P. gallinaceum in chicks. I and the 5-methyl-6-phenyl and 5-methyl-6-(3,4-dichlorophenyl) analogs showed antimetabolite activity against Streptococcus faecium (50% inhibition at 0.002 µg/ml). The 6-methyl-5-phenyl and 6-methyl-5-benzyl derivs. and 5,6-bridged compds. were less active or inactive in this assay. I was prepared by reaction of 1-phenyl-3-butanone [2550-26-7] with malononitrile [109-77-3] and powdered S to form 2-amino-5-benzyl-3-cyano-4-methylthiophene [41543-84-4], which was fused with chloroformamidine-HCl [29671-92-9] yield I.

IT 42160-32-7P 42160-33-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

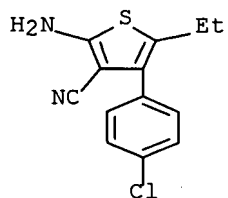
RN 42160-32-7 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-4-(4-chlorophenyl)-5-methyl- (9CI) (CA INDEX NAME)



RN 42160-33-8 CAPLUS

CN 3-Thiophenecarbonitrile, 2-amino-4-(4-chlorophenyl)-5-ethyl- (9CI) (CA INDEX NAME)



L13 ANSWER 32 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1968:96786 CAPLUS Full-text

DOCUMENT NUMBER: 68:96786

ORIGINAL REFERENCE NO.: 68:18711a,18714a

TITLE: Reaction of metallic compounds containing a labile hydrogen atom with α-halo ketones. IV.

Properties of 2-amino-3-cyanofurans

AUTHOR(S): Sharanin, Yu. A.; Karavan, V. S.; Temnikova, T. I.

CORPORATE SOURCE: Leningr. Gos. Univ., Leningrad, USSR

SOURCE: Zhurnal Organicheskoi Khimii (1967), 3(11), 1987-96

CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 68:96786

GI For diagram(s), see printed CA Issue.

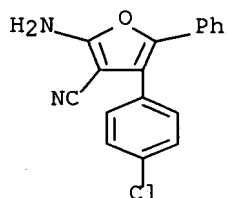
AB To a mixture of 1.4 g. $\text{CH}_2(\text{CN})_2$ and EtONa (obtained from 0.46 g. Na and 25 ml. EtOH) 0.02 mole $\text{PhCOCH(R)C}_6\text{H}_4\text{Cl-p}$ (I, $\text{R} = \text{Cl}$) was added with stirring at 10–15°. The mixture was stirred for 30 min. at room temperature to give 78.3% 2-amino-3-cyano-4-(p-chlorophenyl)-5-phenylfuran (II) m. 217–18°. Condensation of $\text{CH}_2(\text{CN})_2$ with I ($\text{R} = \text{OH}$) also gave II. The reaction is not general; for instance 4-(dialkylamino)benzoins do not give disubstituted-2-amino-3-cyanofurans (III), and reaction of $\text{PhCOCPh}_2\text{Br}$ with NaCH(CN)_2 gave only PhCOCHPh_2 . Reactions of III are described. Condensation of III with maleic anhydride gave the following IV ($\text{R}, \text{R}_1, \%$ yield, m.p. given): Me, H, 78, 252–3°; H, Me, 78, 199°; H, MeO, 79, 208–9°; EtO, H, 82, 151–2°; H, H, 76, 163–5° Condensation of III with BzH or its analogs gave the following V ($\text{R}, \text{R}_1, \text{R}_2, \%$ yield, m.p. given): H, CO_2Et , H, 59, 146°; H, Ac, H, 65, 140°; H, H, Cl, 96, 177.5°; Me, Ph, H, 82, 189–90°; H, MeC_6H_4 , H, 90, 186–7°; Cl, Ph, H, 89, 188°; H, ClC_6H_4 , H, 92, 182–3°; Br, Ph, H, 81, 181–2°; MeO, Ph, H, 64, 175–6°; H, MeOC_6H_4 , H, 71, 170–1°; Ph, Ph, H, 78, 204–6°; H, Ph, H, 96, 202–3°; H, Ph, NO_2 , 82, 213–14°; H, Ph, Cl, 88, 176–7°; H, Ph, Br, 94, 170–1°; H, Ph, m-Cl, 81, 144–5°; H, Ph, o-Cl, 94, 209–10°; H, Ph, NMe_2 , 91, 183–4°. A hot solution of 0.005 mole III in 30 ml. alc. was added to a boiling solution of 1.52 g. 1,2-naphthoquinone-4-sulfonic acid in 30 ml. 20% EtOH containing 0.2 g. NaOH. The mixture on cooling deposited VI [$\text{R}, \text{R}_1, \%$ yield, m.p., and λ_{maximum} in $\text{m}\mu$ ($\log \epsilon$) given]: Ph, H, 77, >300°, 254(4.36), 288(4.23); Ph, Ph, 62, 284–7°, 255(4.45), 299(4.20); MeC_6H_4 , Ph, 71, >300°, 256(4.30), 306(4.11); ClC_6H_4 , Ph, 84, >300°, 255(4.23), 304(4.01); α -furyl, α -furyl, 59, >300°, 373(3.85). III ($\text{R} = \text{R}_1 = \alpha$ -furyl), m. 184–5° (MeCN), was prepared by condensation of $\text{CH}_2(\text{CN})_2$ with furoin. Condensation of III with HCONH_2 by heating for 1 hr. gave the following 5-R,6-R₁-substituted-4-aminofuro[2,3-d]pyrimidines ($\text{R}, \text{R}_1, \%$ yield, and m.p. given): Ph, H, 90, 296–8°; Ph, CO_2Et , 45, 188–9°; ClC_6H_4 , Ph, 88, 258–9°; α -furyl, α -furyl, 49, 196–7°. Refluxing a mixture of 3 g. III, 10 ml. CS_2 , and 10 ml. pyridine for 50 hrs. gave the following 5-R,6-R₁-1-H,3-H-furo[2,3-d]pyrimidine-2,4-dithiones (R, R_1 , and % yield given): Ph, H, 18; Ph, Ph, 21; MeC_6H_4 , Ph, 24; MeOC_6H_4 , Ph, 19; PhC_6H_4 , Ph, 26. Refluxing for 1 hr. a solution of 0.01 mole III in 50 ml. alc. containing 10 ml. concentrated HCl gave 4-R,3-R₁-substituted-3-cyano-4-hydroxycrotonolactones ($\text{R}, \text{R}_1, \%$ yield, and m.p. given): Ph, H, 36, 149–50°; MeC_6H_4 , Ph, 52, 184–6°; ClC_6H_4 , Ph, 48, 155–6°; Ph, MeOC_6H_4 , 42, 172–3°; Ph, Ph, 40, 141–2°.

IT 14774-60-8P 18031-71-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

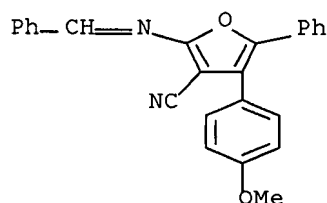
RN 14774-60-8 CAPLUS

CN 3-Furancarbonitrile, 2-amino-4-(4-chlorophenyl)-5-phenyl- (9CI) (CA INDEX NAME)



RN 18031-71-5 CAPLUS

CN 3-Furonitrile, 2-(benzylideneamino)-4-(methoxyphenyl)-5-phenyl- (8CI) (CA INDEX NAME)



L13 ANSWER 33 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1967:443778 CAPLUS Full-text

DOCUMENT NUMBER: 67:43778

ORIGINAL REFERENCE NO.: 67:8231a, 8234a

TITLE: Reaction of metal derivatives of compounds containing a labile hydrogen atom with α -halo ketones. II.

Conversion of substituted α -halodeoxybenzoins to 2-amino-3-cyano-4,5-diarylfurans

AUTHOR(S): Temnikova, T. I.; Sharanin, Yu. A.; Karavan, V. S.

CORPORATE SOURCE: Leningr. Gos. Univ., Leningrad, USSR

SOURCE: Zhurnal Organicheskoi Khimii (1967), 3(4), 681-4

CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 67:43778

GI For diagram(s), see printed CA Issue.

AB cf. CA 66: 75474d. The title compds. of formula I were synthesized by either Gewald's method (CA 58: 496h) by treating $\text{H}_2\text{C}(\text{CN})_2$ with benzoins $\text{PhCOCHXC}_6\text{H}_4\text{Z-p}$ (II) or $\text{PhCHYCOC}_6\text{H}_4\text{Z-p}$ (III) ($\text{X} = \text{Y} = \text{OH}$, $\text{Z} = \text{H}$, Me , OMe , Ph , Cl , or Br), and by a known method (CA 66: 75474d) by treating α -halo ketones II or III ($\text{X} = \text{Cl}$, $\text{Y} = \text{Br}$, $\text{Z} = \text{H}$, Me , OMe , Ph , Cl , or Br) with $\text{NaCH}(\text{CN})_2$. Exptl. details are not given, both methods gave identical products; the following I are listed: [R, R', (%) yields of I prepared from α -chloro ketones, α -bromo ketones, and benzoins, and m.p. given] Ph, Ph, 57.7, 50.0, 73.6, 207-8°; MeC_6H_4 , Ph, -, 80.3, 78.0, 196-7°; Ph, MeC_6H_4 , 83.0, -, 80.4, 191-2°; MeOC_6H_4 , Ph, -, 60.4, 77.5, 182-3°; EtOC_6H_4 , Ph, -, 72.4, -, 175°; PhC_6H_4 , Ph, -, 77.4, 77.0, 208-10°; Ph, PhC_6H_4 , 79.5, -, 84.0, 203-4°; Ph, ClC_6H_4 , -, -, 80.0, 221-3°; Ph, BrC_6H_4 , -, -, 63.4, 215-17°; Ph, MeOC_6H_4 , 62.0, -, 71.5, 176-7°. Heating of I with HCHO gave the following IV: (R, R', % yield, and m.p. given) Ph, Ph, 70, 266-7°; MeC_6H_4 , Ph, 55, 248-9°; Ph, MeC_6H_4 , 53, 245-6°; MeOC_6H_4 , Ph, 46, 236-7°; Ph, MeOC_6H_4 , 42, 233-4°; EtOC_6H_4 , Ph, 60, 232-3°; PhC_6H_4 , Ph, 61, 250-1°; Ph, PhC_6H_4 , 67, 245-6°; Ph, ClC_6H_4 , 65, 274-5°; Ph, BrC_6H_4 , 68, 294-5°.

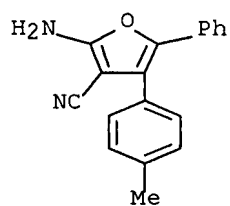
IT 14774-55-1P 14774-60-8P 14774-61-9P
14774-62-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 14774-55-1 CAPLUS

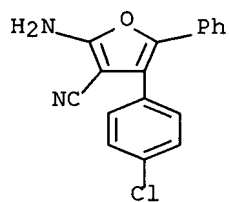
CN 3-Furancarbonitrile, 2-amino-4-(4-methylphenyl)-5-phenyl- (9CI) (CA INDEX NAME)

10/596419



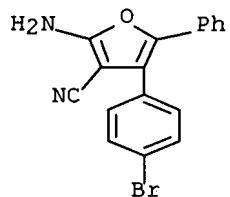
RN 14774-60-8 CAPLUS

CN 3-Furancarboxynitrile, 2-amino-4-(4-chlorophenyl)-5-phenyl- (9CI) (CA INDEX NAME)



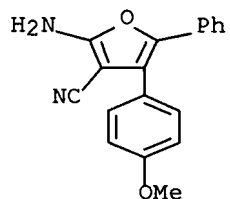
RN 14774-61-9 CAPLUS

CN 3-Furancarboxynitrile, 2-amino-4-(4-bromophenyl)-5-phenyl- (9CI) (CA INDEX NAME)



RN 14774-62-0 CAPLUS

CN 3-Furancarboxynitrile, 2-amino-4-(4-methoxyphenyl)-5-phenyl- (CA INDEX NAME)



8 LL12
L14 8 LL12 NOT L13

=> d 1-8 ibib abs hitstr

L14 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:665112 CAPLUS Full-text

DOCUMENT NUMBER: 145:121353

TITLE: Endocytosis of the glucose transporter GLUT8 is mediated by interaction of a dileucine motif with the β 2-adaptin subunit of the AP-2 adaptor complex

AUTHOR(S): Schmidt, Ulrike; Briesse, Sophie; Leicht, Katja; Schuermann, Annette; Joost, Hans-Georg; Al-Hasani, Hadi

CORPORATE SOURCE: German Institute of Human Nutrition, Potsdam, Nuthetal, 14558, Germany

SOURCE: Journal of Cell Science (2006), 119(11), 2321-2331
CODEN: JNCSAI; ISSN: 0021-9533

PUBLISHER: Company of Biologists Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The glucose transporter GLUT8 cycles between intracellular vesicles and the plasma membrane. Like the insulin-responsive glucose transporter GLUT4, GLUT8 is primarily located in intracellular compartments under basal conditions. Whereas translocation of GLUT4 to the plasma membrane is stimulated by insulin, the distribution of GLUT8 is not affected by insulin treatment in adipose cells. However, blocking endocytosis by co-expression of a dominant-neg. dynamin GTPase (K44A) or mutation of the N-terminal dileucine (LL12/13) motif in GLUT8 leads to accumulation of the glucose transporter at the cell surface in a variety of different cell types. Yeast 2-hybrid analyses and GST pulldown assays reveal that the LL signal constitutes a binding site for the β 2-adaptin subunit of the heterotetrameric AP-2 adaptor complex, implicating this motif in targeting of GLUT8 to clathrin-coated vesicles. Moreover, yeast 2-hybrid assays provide evidence that the binding site for the LL motif maps to the appendage domain of β 2-adaptin. To analyze the biol. significance of the LL/ β 2 interaction, we utilized RNA interference to specifically knockdown AP-2. These results show that RNAi-mediated targeting of the μ 2 subunit leads to cellular depletion of AP-2, but not AP-1 adaptor complexes in HeLa cells. As a consequence, GLUT8 accumulates at the plasma membrane at comparable levels to those observed in K44A-transfected cells. Conversely, the intracellular localization of mutant GLUT8-LL/AA is restored by replacing the LL motif in GLUT8 with the transferrin receptor-derived μ 2-adaptin binding motif YTRF, indicating that for endocytosis both AP-2 binding motifs can substitute for each other. Thus, these data demonstrate that recruitment of GLUT8 to the endocytic machinery occurs via direct interaction of the dileucine motif with β 2-adaptin, and that endocytosis might be the main site at which GLUT8 is likely to be regulated.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:390683 CAPLUS Full-text

DOCUMENT NUMBER: 138:130168

TITLE: Novel mixed-ligand derivatives of cobalt(II) salts with 1,3-diones and sulphur donor ligands

AUTHOR(S): Tripathy, S. L.; Mahapatra, S. C.

CORPORATE SOURCE: P. G. Department of Chemistry, D. D. College, Keonjhar, 758 001, India

SOURCE: Journal of Teaching and Research in Chemistry (2001),

8(2), 25-28

CODEN: JTRCEN; ISSN: 0971-6408

PUBLISHER: International Society of Teachers and Researchers in Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:130168

AB Reactions of CoX_2 ($\text{X} = \text{Cl}, \text{Br}, \text{NO}_3, \text{ClO}_4$) with relevant 1,3-dione and thiourea or substituted thiourea in EtOH medium gave penta- and hexa-coordinated mixed ligand complexes $[\text{CoXLL}_2]$, $[\text{Co}(\text{NO}_3)\text{LL}_2]$ and $[\text{CoLL}_2(\text{H}_2\text{O})_2]\text{ClO}_4$ ($\text{X} = \text{Cl}$ or Br ; $\text{LH} = \text{acetylacetone}$ or benzoylacetone and $\text{L}_1 = \text{thiourea}$ or N,N' -diphenylthiourea). The compds. were isolated, characterized and possible stereochem. deduced from anal., spectral (IR and electronic), conductivity and magnetic susceptibility data.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:570058 CAPLUS Full-text

DOCUMENT NUMBER: 135:156141

TITLE: Microstructure of rapidly solidified Al-Cr-Zr-Ti alloy

AUTHOR(S): Su, Yong; Chen, Yiqing; Ding, Houfu; Huang, Xingmin

CORPORATE SOURCE: School of Material Science and Technology, Hefei University of Technology, Hefei, 230009, Peop. Rep. China

SOURCE: Xiyou Jinshu (2001), 25(3), 166-169

CODEN: XIJID9; ISSN: 0258-7076

PUBLISHER: Xiyou Jinshu Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The as-spun and as-annealed microstructures of rapidly solidified Al-4Cr-4Zr-2Ti (at%) alloy were studied by TEM and energy dispersive spectrum anal. (EDS). The microstructure of the as-spun alloy was in the totally solid-solution state. The results showed that annealing at 350° for 4 h resulted in formation of continuous grain boundary ppts. (GBPs), annealing at $450^\circ \times 4$ h resulted in the intergranular precipitation of needle $\text{Al}_{13}(\text{Cr}, \text{Ti})_2$ phase and the GBPs of globular $\text{L}_{12}\text{-Al}_3$ (Zr, Ti) phase, and after annealing at $550^\circ \times 4$ h metastable phase $\text{L}_{12}\text{-Al}_3(\text{Zr}, \text{Ti})$ transformed to stable phase $\text{D}_{023}\text{-Al}_3$ (Zr, Ti).

L14 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:56364 CAPLUS Full-text

DOCUMENT NUMBER: 126:100866

TITLE: Association of herpes simplex virus regulatory protein ICP22 with transcriptional complexes containing EAP, ICP4, RNA polymerase II, and viral DNA requires posttranslational modification by the UL13 protein kinase

AUTHOR(S): Leopardi, Rosario; Ward, Patricia L.; Ogle, William O.; Roizman, Bernard

CORPORATE SOURCE: Marjoire B. Kovler Viral Oncology Laboratories, University of Chicago, Chicago, IL, 60637, USA

SOURCE: Journal of Virology (1997), 71(2), 1133-1139

CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The expression of herpes simplex virus 1 γ (late) genes requires functional α proteins (γ_2 genes). We report that late in infection after the onset of

viral DNA synthesis, cell nuclei exhibit defined structures which contain two viral regulatory proteins (infected cell proteins 4 and 22) required for γ gene expression, RNA polymerase II, a host nucleolar protein (EAP or L22) known to be associated with ribosomes and to bind small RNAs, including the Epstein-Barr virus small nuclear RNAs, and newly synthesized progeny DNA. The formation of these complexes required the onset of viral DNA synthesis. The association of infected cell protein 22, a highly posttranslationally processed protein, with these structures did not occur in cells infected with a viral mutant deleted in the genes UL13 and US3, each of which specifies a protein kinase known to phosphorylate the protein.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:323030 CAPLUS Full-text

DOCUMENT NUMBER: 122:150101

TITLE: Synthesis and characterization of some peroxo complexes of molybdenum(VI) and dioxouranium(VI)

AUTHOR(S): Islam, M. Saidul; Islam, M. Nazrul; Uddin, M. Masir

CORPORATE SOURCE: Department Chemistry, Rajshahi University, Rajshahi, 6205, Bangladesh

SOURCE: Indian Journal of Chemistry, Section A: Inorganic, Bio-inorganic, Physical, Theoretical & Analytical Chemistry (1994), 33A(11), 1028-30
CODEN: ICACEC; ISSN: 0376-4710

PUBLISHER: Publications & Information Directorate, CSIR

DOCUMENT TYPE: Journal

LANGUAGE: English

AB [MO(O2)LL12] (M = Mo, U; LH2 = diphenic acid; L1 = pyridine, quinoline, isoquinoline, 2-picoline, 4-picoline) were prepared and characterized by elemental anal., IR, and molar conductance studies. The complexes are inert towards oxidation of allyl alc., but oxidize triphenylphosphine and triphenylarsine to their oxides.

L14 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:196851 CAPLUS Full-text

DOCUMENT NUMBER: 102:196851

TITLE: Studies on copper(II) mixed β -diketonates and their adducts with nitrogen bases

AUTHOR(S): Mishra, R. C.; Mishra, P. K.; Mohapatra, B. K.; Panda, D.

CORPORATE SOURCE: Dep. Chem., B. J. B. Coll., Bhubaneswar, 751 014, India

SOURCE: Journal of the Indian Chemical Society (1984), 61(9), 802-4

CODEN: JICSAH; ISSN: 0019-4522

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cu(acac)₂ (Hacac = acetylacetone) reacted with CuL₂ (HL = dipivaloylmethane, thenoyltrifluoroacetone, trifluoroacetylacetone, hexafluoroacetylacetone, pivaloyltrifluoroacetone) in C₆H₆ to give Cu(acac)L, which in turn reacted with quinoline (L1) to give Cu(acac)LL1 or Cu(acac)LL12 (HL = hexafluoroacetylacetone). The complexes were characterized by elemental anal., molar conductivity, magnetic moment, and spectral (IR, electronic) methods.

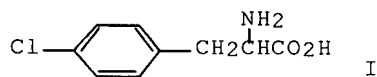
L14 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1980:58963 CAPLUS Full-text

10/596419

DOCUMENT NUMBER: 92:58963
TITLE: Preparation of cationic complexes [Rh(diolefin)L₂]ClO₄ and their carbonylation reactions
AUTHOR(S): Uson, R.; Oro, L. A.; Valderrama, M.; Claver, C.
CORPORATE SOURCE: Dep. Inorg. Chem., Univ. Zaragoza, Zaragoza, Spain
SOURCE: Synthesis and Reactivity in Inorganic and Metal-Organic Chemistry (1979), 9(6), 577-84
CODEN: SRIMCN; ISSN: 0094-5714
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The 1:1 addition of Ph₃As or Ph₃Sb to [RhL₂]ClO₄ (L = tetrafluorobenzobarrelene, 2,5-norbornadiene, 1,5-cyclooctadiene gave [RhLL₁L₂]ClO₄ (L₁ = Ph₃As, Ph₃Sb), carbonylation of which gave pentacoordinated [RhL(AsPh₃)CO]ClO₄ or tetracoordinated [Rh(CO)₂(SbPh₃)₂]ClO₄ complexes.

L14 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1979:469261 CAPLUS Full-text
DOCUMENT NUMBER: 91:69261
TITLE: Effects of p-chlorophenylalanine and 5,6-dihydroxytryptamine on the free-running rhythms of locomotor activity and plasma corticosterone in the rat exposed to continuous light
AUTHOR(S): Honma, Kenichi; Watanabe, Kenji; Hiroshige, Tsutomu
CORPORATE SOURCE: Sch. Med., Hokkaido Univ., Sapporo, 060, Japan
SOURCE: Brain Research (1979), 169(3), 531-44
CODEN: BRREAP; ISSN: 0006-8993
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB p-Chlorophenylalanine (I) [1991-78-2] and 5,6-dihydroxytryptamine (5,6-DHT) [5090-36-8], depletors of brain serotonin [50-67-9], were administered to the rat and circadian rhythms of locomotor activity and plasma corticosterone [50-22-6] were determined simultaneously in individual rats in light-dark cycles (LD) and in 200 lx continuous light (LL). In I-treated rats which had 70% depletion of brain serotonin, circadian rhythms of locomotor activity in LL, and of plasma corticosterone and ACTH in LD, disappeared for several days after the drug injection. Circadian rhythms of locomotor activity reappeared after the LL7 day and free-ran with a phase shift. Free-running periods of these rats did not differ significantly from that of control rats. However, the acrophase of the I-treated group on the LL11 day was 5 h advanced as compared with that of controls. Circadian rhythm of plasma corticosterone in the I-treated rats was detected on the LL12 day, but their peak times were distributed around 24:00 h instead of 08:00 h observed in control rats. The 5,6-DHT-treated rats which had only 40% depletion of brain serotonin exhibited normal free-running rhythms in both locomotor activity and plasma corticosterone in LL and no difference in the acrophases of these functions on the LL12 day as compared with controls. Apparently, I affects the circadian clock (or clocks) itself by blocking the clock to free-run or at least effectively shortening the free-running periods of locomotor activity and plasma corticosterone in the rat.

10/596419

STN INTERNATIONAL LOGOFF AT 15:28:29 ON 14 NOV 2007